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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Sketch of the Life and Character of* JOHN BROADHEAD BECK, M. D., *late Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons, New-York.* By C. R. GILMAN, M. D., Professor of Obstetrics and the Diseases of Women and Children in the College of Physicians and Surgeons of New-York. [With a Portrait on India paper.]

AT a time when the scanty leisure which a professional man can snatch from the pressure of daily engagements, is crowded by an unusual amount of other duties, I am called upon to perform a task, and that, too, in a few days, to which I would willingly devote much time and reflection. I have been requested to present to the profession that honored, and the friends who loved him, a sketch of the life and character of the late John B. Beck, M. D., Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons in New-York. This duty ought to be fulfilled in a manner very different from that in which I can hope to do it; for though his life, like those of his professional brethren generally, presented few events on which a biographer would need

to dwell, yet, to sketch his character in such way as to recall to those who knew him a distinct recollection of the many and varied excellences which they admired in him while living, and to enable those to whom he was personally unknown, to form a true estimate of the personal and professional qualities which placed him, almost from the moment of his entrance into his profession, among the most highly-esteemed of its members—this is no easy task; and deeply do I reget that it is not to be performed by some one more likely to do it justice; then would the world, who knew him not, or knew him only as an author, be able to comprehend why, among his daily associates and friends, the rule was absolute, that those who knew him best loved him best.

John Broadhead Beck was born September 18th, 1794, at Schenectady. He was the third son of Caleb Beck and Catharine Theresa Romeyn, only daughter of Rev. Dirck Romeyn, D. D., a man to whose earnest zeal and enlightened and far-seeing benevolence we owe the existence of one of our noblest institutions of learning—Union College. While yet a child Dr. Beck lost his father, and from that period his education, and that of his four brothers, Theodric, Abraham, Nicholas, and Lewis, was for some years guided by his excellent mother. How well this most estimable lady performed her task is seen not more in the elevated rank to which each of these gentlemen attained in the professions of their adoption, than in the loving respect which they ever cherished for their mother. She still lives at the age of 84; having survived three distinguished sons, she is yet able to enjoy the filial tenderness of the two who survive, *sero in celum redeat!* May the life that has been prolonged far beyond man's ordinary term of threescore years and ten be crowned with purchased and promised blessings, and may her children's children, to the third and fourth generation, rise up and called her blessed! At the age of seven, John left his paternal home to reside with his uncle, Rev. John B. Romeyn, then pastor of the Reformed Dutch Church in Rhinebeck. Here he commenced his classical studies; and there is no reason to doubt that the fondness which through life he cherished for the learning of the ancients, may be attributed to the fact that his first steps in those studies

were guided, and his first advances encouraged, by that ripe scholar and indulgent friend. In 1804, Dr. Romeyn removed to the city of New-York, and took his nephew with him; here the young man's education progressed under the same kind and judicious care. In 1809 he entered Columbia College, of which his uncle was trustee, and of which the great Mason was Provost. Here his industry and ability soon secured for him the warm approbation, and even friendship, of the distinguished Provost, who took great delight in encouraging and guiding his progress throughout his collegiate course. The result could not be doubtful; his success was worthy of himself and the friends whose favor he had won. In 1813 he graduated with the highest honors of his class. Dr. Beck ever retained a kindly feeling for his Alma Mater, and in subsequent life, when she had manifested her appreciation of his general ability by appointing him one of her trustees, he took an active part in every effort made to sustain and elevate her reputation. Immediately after his graduation he accompanied his uncle and aunt to Europe, and spent some time in London, where he applied himself to the study of Hebrew, under the instruction of the Rev. Mr. Humphrey, a grandson of Doddridge. This study of Hebrew enabled Dr. Beck, in after life, to take an intelligent interest in Biblical criticism. On his return from Europe he determined to study Medicine, and for that purpose entered the office of Dr. David Hosack, of whom he soon became a favorite pupil. It is pleasant now to think that, though the part they respectively took in medical politics soon separated the able pupil from the distinguished teacher, yet each retained in after life a high estimate of the ability, skill, and sound medical learning of the other. In 1817 Dr. Beck graduated at the College of Physicians and Surgeons, New-York, presenting on the occasion a thesis on Infanticide, which was published at the time, and afterwards, with many and valuable additions, incorporated into the great work on Medical Jurisprudence of his distinguished brother, T. Romeyn Beck, of Albany. Of this treatise, it is no more than the literal truth to say that it has completely exhausted the subject. Subsequent writers have done little more than present copies, more or less imperfect, of this *the standard work on*

Infanticide. In 1822, Dr. Beck, in company with Drs. Dyckman and Jno. W. Francis, established the New-York Medical and Physical Journal. To this journal Dr. Beck devoted a large portion of his time, and in it were published many able papers from his pen. Among them may be specially mentioned his paper on Laryngitis, several Reviews on the Contagiousness of Yellow Fever, a favorite doctrine of his great teacher, Hosack; and then the leading *questio vexata* of Medical Science, and others on the Modus Operandi of Medicines, in which the doctrine of their absorption into the blood was ably sustained. Dr. Beck continued the chief editor of the Medical and Physical Journal for seven years, being associated in the latter part of that period with Dr. Peixotto. In 1826 Dr. Beck was elected Professor of Materia Medica and Botany in the College of Physicians and Surgeons, New-York, then newly organized in consequence of the simultaneous resignation of all the previous Faculty. This step, the crowning act of a long series of dissensions, threw upon their successors a weight of responsibility difficult to bear. The names of Post, Hosack, Mitchell, Mott, M'Neven and Francis, were known throughout the country, and respected wherever known; the whole influence of these names was thrown against the new organization, and it had, in its very inception, to struggle against the imputed odium of having driven those distinguished men from positions they adorned. Of this responsibility, Dr. Beck was prompt to take his full share, and his ability as a controversialist was too well known, and had been too sorely felt, not to insure to him a full share in any odium which the friends of the old could throw on the leaders of the new organization. But it was not alone against the influence of names that the school had to struggle; active rivalry was soon attempted, and a new medical school, the Rutgers Medical College, organized, with Hosack, Mott, M'Neven and Francis in their old departments, while the places of Post and Mitchell were filled by John D. Godman and Dr. Griscom.

In the struggles which followed, Dr. Beck bore his full share, and it is doing no injustice to his distinguished associates to say that no one man did so much in sustaining the College. In his own department he was impregnable; of those

(and they were many) who desired that he should fail as a public teacher, few hoped it, and those few were miserably disappointed; his success from the first was signal, and his popularity as a lecturer went on steadily increasing till the close of his career. But it was not alone, though, of course, chiefly, as a public teacher, that Dr. Beck served the College; he was the zealous promoter of its interests, the ready defender of its policy. It is delightful to those who are now connected with the institution, to recall the many, many proofs he gave of unabated interest in the College, next to the ties of kindred were those which bound him to his Medical Alma Mater, and to his life's close he still delighted to hear of her prosperity, and was ever ready to go beyond his strength in her service. May those to whom her interests are now confided serve her, if with less ability, with equal zeal! In 1831, Dr. Beck married Anne, eldest daughter of Fanning C. Tucker, Esq., who, with five children, survives him. In 1835, Dr. Beck was appointed one of the Physicians of the New-York Hospital, which situation he filled for ten years, and discharged its duties with fidelity and zeal. This appointment and his services at the Hospital had a very favorable effect on Dr. Beck's reputation as a practitioner. Hitherto, his brethren had known him only as, for his age, a learned physician, a practised and able writer, and a judicious and attractive lecturer. At the Hospital he proved himself no less sagacious in investigating disease at the bed-side, than skilful in the application of remedies to its cure. Dr. Beck was, and aimed to be, rather judicious in the use of a few remedies, than able to overwhelm disease by a multitude of remedies, often heterogeneous and sometimes even incongruous. While thus applying the fruit of previous study for the relief of the sufferer at this great public charity, he did not lose the opportunity of giving to the students and young physicians connected with the establishment, those clinical lessons which are of such inestimable value. His clinical instruction was, like all his public teaching, distinguished by great simplicity of language, clearness, and a devotion to utility rather than show. In 1843, he collected together, and published in a volume, a few of the most important of his contributions to periodical medical literature.

In 1849, his work on Infantile Therapeutics appeared, and was received with the greatest favor both at home and abroad. Few medical books of its size contain an equal amount of sound learning and practical good sense.

Dr. Beck enjoyed, in an eminent degree, the respect and confidence of his professional brethren. Of this he received continued proofs, from the commencement to the close of his professional life. He was elected, when a very young man, Trustee of the College of Physicians and Surgeons, and Censor of the County Medical Society. He held, at subsequent periods, the offices of Vice-President and President of the County Medical Society, Vice-President and then President of the State Medical Society, before which he delivered an inaugural address on the History of American Medicine before the Revolution, which was afterwards published, and amply sustained his well-earned reputation. He took an earnest interest in the organization of the New-York Academy of Medicine, and was early elected one of its Vice-Presidents, and, subsequently, Orator to the Academy. This was the last opportunity his brethren enjoyed of manifesting their unabated respect for him, and regrets, as sincere as general, were felt that his failing health compelled him to decline the duty he would, under more favorable circumstances, have performed with such eminent ability. About the year 1842, Dr. Beck was attacked with hemorrhage from the bowels, by which he was greatly prostrated. This was repeated at intervals of some months, two or three times, under circumstances which gave his medical friends too much reason to fear that malignant disease was beginning in some part of the alimentary canal. In 1845, he suffered from a local inflammation, which ran on to an unhealthy suppuration about the angle of the lower jaw: the accumulated purulent matter broke into the pharynx, and some of it finding its way into the stomach, caused an almost uncontrollable vomiting, by which he was so much prostrated as to cause, in the mind of his attendant, apprehensions of an immediate fatal result. From this time Dr. B. continued an invalid, rallying occasionally, but soon falling off, and only enabled to perform his duties as a practitioner and a public teacher, by the most indomitable strength of will—the most determined purpose not to give it up.

For the last few years of his life he was a martyr to neuralgia and spasmodic disease, from which his sufferings were most intense; still he bore up, with almost superhuman resolution, and continued to visit patients and to lecture in the College till the beginning of the Session of 1850-51, when he was at last, and for ever, driven from the scene of his honorable labors and the service of the Institution, to promote whose interests had been, for so many years, the main object of his professional life.

During the winter of 1850-51, his disease made steady progress, and it became evident that the term of his labors and his sufferings was nigh at hand. These sufferings soon became so intense as to induce his best friends to pray for his early release. He derived at one time some relief from the use of anesthetics and stimulants, but, towards the last, was unwilling to use them. "I do not wish," said he to a medical friend, "to die stupefied or insane." He wished to look the King of Terrors full in the face, and watch with steady eye his slow approach. At length the hour of suffering ended, and "the day of his redemption" arrived. On Wednesday, April 9, at 6 P. M, he died. His funeral, on Friday, April 11, was attended by almost all the most eminent members of the profession in the city, who vied with each other in manifestations of affection and respect for the deceased. An address, full of genuine feeling and true piety, was delivered by the Rev. Dr. Knox, an old and highly-valued friend, for whom Dr. Beck had always cherished profound respect.

In a survey of the intellectual character of Dr. Beck, the first quality that deserves especial notice, was *energy*—in this he had few equals; an end being set before him, he pursued it with a vigor, a steadiness of purpose, and a force of will which rarely failed to command success. Another trait, which was very marked in him, was clearness of perception; he saw the object presented to his "mind's eye" with all the distinctness of the most perfect physical vision. This quality was undoubtedly the secret of much of his success as a practitioner of medicine, and a medical writer and public teacher. He saw disease just as it was; theories never distorted, nor did prejudice befog it—he saw it clearly and perfectly distinct

from every other object. Having this quality in so eminent a degree, and being both in English and the classics a thorough scholar, he could not fail to communicate in words a just and accurate idea of the object before him. So in argument and controversy, he saw the question to be discussed, or the point in dispute; it was perfectly definite to his apprehension, and, consequently, his arguments neither fell short of, nor flew beyond, the point; "rem acu tetigisti" is constantly suggested to the mind as we read his arguments.

Dr. Beck's learning was eminently extensive and accurate. What he knew, he knew precisely and definitely. This, though true in a degree far from common of his classical, was especially so of his strictly professional learning. The latter took a far wider range, embracing not only the popular authors of our own time and the age immediately preceding us, but also the best writers of by-gone days, those venerable classics on whose merits Time has set his seal. Of these authors he was a constant reader, referring to them as the charts by which he was best pleased to sail.

The success of Dr. Beck, as a public teacher, has already been noticed. He united in a degree, quite peculiar to himself, the qualities often seen apart, that made him both useful and popular. His lectures were clear, precise, and singularly practical—no merely specious theories, no rash generalizations, no loose assertions, found place there; all was logical, accurate, true. These qualities, and the ready courtesy with which, when the lecture was over, he answered the questions and solved the doubts of his pupils, and removed, by repeated and varied illustration (in which he was singularly successful), the difficulties in the way of their perfect comprehension of a subject, gained him a very strong hold on the respect and affections of his pupils, and secured their entire and implicit confidence.

The personal character of Dr. Beck was of a very high order; a steady adherence to principle, an ardent love of truth, an unhesitating, unwavering, almost instinctive preference of the right over the expedient, marked him as in the best and highest sense of the words, *a man of honor;* and if, in early life, he manifested, perhaps sometimes too plainly, his disgust

at pretension, his abhorrence of fraud, his contempt for meanness, it was but the working of a noble nature, to which such faults were in their very essence alien and abhorrent. Such were some of the characteristics which commended Dr. Beck, as a man and a physician, to the love and admiration of all who knew him.

It is now delightful to think that these noble qualities were adorned and harmonized by the graces of a sincere and consistent Christian. Many years before his death, he made public profession of his faith in Christ, and united himself to the Reformed Dutch Church, the church of his forefathers. His life ever after was, so far as human infirmity will allow to any, consistent with his profession.

Of his faith and patience, long and hard trial was made by an illness protracted during many years, and attended by sufferings nearly constant, and often agonizing. So unremitting and so long continued were his pains, that, some months before his death, he told me that for five years he had not been free from pain for one single half hour. These pains seemed to me at times to have no other limit than the capacity of the system to the sensation of pain. Human nature, I confidently believe, could endure no more. Yet, through all this, his patient submission to the Divine will failed not for a moment. At length, the measure of his sufferings being full, Death, the gracious messenger, came, but still amid pains indescribable, and set him free. No repinings disturbed the calm serenity of his soul—no doubts dimmed, even for a moment, his clear perception of the Divine benignity. Thus he died:

Oh God, Most Mighty! Oh, Holy and Most Merciful Saviour! suffer *us* not, at *our* last hour, for any pains of death, to fall from Thee.

ART. II.—*A statistical and critical account of the Fractures occurring in the New-York Hospital during the period of twelve years, elapsing between the 1st of January, 1839, and the 1st of April, 1851.** By FREDERICK D. LENTE, M. D., late Resident Surgeon.

IT has been considered unadvisable to include, in the following statistics, fractures of the ribs, bones of the face, fingers, toes, tarsal, metatarsal, carpal and metacarpal bones, as they would only add to the length of the article, without materially increasing its value. They, therefore, only comprise fractures of the *thigh*, *leg*, *arm*, *fore-arm*, *clavicle*, *lower jaw*, *pelvis*, *scapula*, *sternum*, *patella*, and *skull*, of which the aggregate number is *seventeen hundred and twenty-two;* or rather we have succeeded in collecting this number; for, no doubt, many have been omitted, either from the manner in which some of the case-books are written up, or from the haste with which it was necessary to go, unassisted, through such an amount of labor. A particular account of the individual cases of fracture of the *skull* is deferred to another opportunity, when a tabular view of them will be given, with whatever inferences and generalizations it may be possible to deduce from them. The *compound* fractures of the *lower extremity* were deemed of sufficient importance, from their bearing on the question of amputation, and from other considerations, to merit a special notice; they, therefore, form a part of the paper referred to in the marginal note, and will appear in the Transactions of the Association.

As far as it has seemed practicable to do so, the following statistics have been arranged in a tabular form as to age, sex, season, seat of fracture, &c. A table of occupation might have been added, but as the great majority of our hospital patients are drawn from only two or three of the various classes

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*These statistics were to have formed part of a paper transmitted by the author to the American Medical Association, at its late session in Charleston, but ill health, and other engagements, prevented its being prepared in time.

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of society, and as some of the classes are, for obvious reasons, scarcely represented at all, it was feared that it might give rise to deceptive inferences as to the relative frequency of these injuries in the respective employments of society. It has, therefore, been omitted.

The following table shows the relative frequency of fractures of the different bones; also a comparison with the statistics of Malgaigne at the Hôtel Dieu of Paris, and Lonsdale at the Middlesex Hospital of London.

	N. Y. Hospital.		Malgaigne.		Lonsdale.	
		Per cent.		Per cent.		Per cent.
Thigh,	280	16.26	308	15.88	181	13.00
Leg,	579	33.62	652	32.59	289	20.76
Tibia and Fibula, *	442	26.24	515	26.56	197	14.15
Tibia, *	45	2.61	29	1.49	41	2.94
Fibula, *	92	5.33	108	5.57	51	3.66
Arm,	161	9.35	310	15.98	118	8.49
Fore-Arm,	269	15.62	307	15.83	386	27.73
Rad. and Ulna, *	90	5.22	107	5,51	93	6.68
Ulna, *	36	2.09	29	1.49	64	4.59
Radius, *	143	8.30	160	8.24	197	14.15
Clavicle,	158	9.11	225	11.60	273	26.79
Inferior Maxilla,	65	3.19	27	1.39	32	2.29
Pelvis,	23	1.33	7	.35	7	.50
Patella,	30	1.74	45	.31	38	2.73
Scapula,	17	.98	4	2.20	18	1.28
Sternum,	12	.69	1	.05	2	.14
Skull,	128	7.43	53	2.73	48	3.45
	1722		1939		1392	

In the American Journal of Medical Sciences, Dr. George W. Norris has published statistics of all the fractures of the bones alluded to in our table, occurring in the Pennsylvania Hospital during the period of ten years, elapsing between 1830 and 1839, inclusive; but, as he includes all the fractures of the leg, whether of one or both bones, under one head, and also classes together all the fractures of the arm and fore-arm, owing to the manner in which the case-books were kept, we have chosen rather to give them a separate notice than to include them in the above table. The whole number of these fractures is eight hundred and forty, of which there are

* Compared with the whole number of fractures of the leg, whether of one or both bones; the per centage for both bones is 76.34; for tibia, 7.79; for fibula, 15.89. Of the 269 fractures of the fore-arm, the per centage for both bones is 33.45; for ulna, 13.39; for the radius, 53.16.

Of the Thigh,	134,	or	15.95	per cent.
" " Leg,	293,	"	34.88	" "
" " Arm and Fore-Arm,	227,	"	27.02	" "
" " Clavicle,	84,	"	10.00	" "
" " Lower Jaw,	19,	"	2.26	" "
" " Pelvis,	6,	"	.71	" "
" " Patella,	16,	"	1.90	" "
" " Scapula,	10,	"	1.19	" "
" " Sternum,	5,	"	.59	" "
" " Skull,	46,	"	5.47	" "
	840			

In comparing these four tables with each other, the reader will, no doubt, be struck with the general agreement in the results of the important fractures (those which most commonly occur) as reported from the New-York Hospital, the Hôtel Dieu and the Pennsylvania Hospital, and the remarkable disagreement of those reported from the Middlesex Hospital. And this needs explanation before we proceed further. The patients treated at this Hospital (Middlesex) are composed of two classes, *in-door* and *out-door* patients; and while all the fractures of the superior extremity are treated which present themselves, only those fractures of the lower extremity are treated which can be accommodated in the hospital with beds; the number is, therefore, necessarily limited to the number of spare beds. This is the explanation given by Malgaigne; but it does not satisfactorily dispose of all the discrepancies of this table. There is an unusually large proportion of fractures of the clavicle, also, which *may* be explained from the fact that a large proportion of children presented themselves for treatment, in whom, according to both Malgaigne and Lonsdale, but not according to our own experience (which is, however, comparatively slight in injuries of infants), this fracture is the most common of all. These facts, though they ought not to disturb the *general* correspondence of results, being thus explicable, will necessarily prevent a comparison of the individual fractures of this table with the other three, since the ratio of all the other fractures included in it is thus disturbed.

In the fractures of the thigh, leg, arm, fore-arm and clavicle, there is, in the three tables referred to, a remarkably close

agreement in their relative frequency, considering the comparatively limited number of the reported cases of each; with one exception—that of the os brachii—of which the ratio is far greater according to Malgaigne than according to our own table, while the aggregate of Dr. Norris's fractures of the arm and fore-arm agrees nearly with our own (24 and 26 per cent.).

In the fractures of the skull, there is a remarkable clashing of results. This is a very common accident in the New-York Hospital, and our cases accordingly much more than double those of Malgaigne and Lonsdale, while they nearly double those of Dr. Norris. Whether they have thicker skulls in Philadelphia, Paris and London, than we have in New-York, remains to be investigated. In the fractures of the *patella*, there is a close correspondence between two of the tables, and a considerable difference in the third; but of these and the remaining fractures we have too small a number reported at present, to be able to deduce any satisfactory conclusions. We will here have to take our leave of Dr. Norris, as he gives no information, in his tables, as to age, sex, season or seat of fracture.

Of the fractures of the	Thigh,	26	were	compound,	or	9.29	per	cent.
" " "	Leg,	132	"	"		22.79	"	"
" " "	Arm,	22	"	"		13.66	"	"
" " "	Fore-Arm,	24	"	"		8.90	"	"
" " "	Lower Jaw,	11	"	"		16.92	"	"
" " "	Patella,	4	"	"		13.33	"	"

Of the four compound fractures of the patella, two died; these were caused by gunshot wounds; one died of tetanus, the other after amputation.

There were two compound fractures of the clavicle, and, I believe, the only two ever reported, with one exception. One was primary, and was reported at length in this Journal in May, 1850, The other became compound secondarily. The former recovered, the latter died; there were abscesses in the lungs.

In eight cases, both thighs were fractured simultaneously; in one of them, there was also fracture of the arm and fore-arm of the same side, and severe contusions. This patient was treated with the straight apparatus, as were all the others, and

within seven weeks after the accident was walking with crutches.

Thirty-three were complicated with other fractures. Thirty of Malgaigne's were thus complicated, including fractures of both legs, &c. In seventeen cases, fractures of both legs occurred simultaneously; twenty-seven were complicated with fractures of other bones.

The following table shows the seat of fracture in the several bones, as far as a tabular arrangement is possible.

	Neck.	At or near Middle.	Above Middle	Below Middle.	Through lower Articular end.	Through upper Articular end.
Thigh, . . .	26	76	47	71	8	
Leg, . . .		112	50	242	27	11
Arm, . . .	20	39	38	37	16	1
Fore-arm, .		36	19	82	122	12

Fractures of the fibula *alone* are not included with these, as most of them occur at or about the same point. Thus, of *eighty-six* fractures of this bone, in which the seat of fracture is noted, in *forty* instances it occurred at from 2 to 4 inches from the ankle-joint, or the extremity of the malleolus externus. These were probably nearly all cases of "Pott's fracture," for there is generally associated with fracture of the lower part of the fibula (always, when it is produced by forcible abduction), more or less complete rupture of the internal lateral ligament. In six-tenths of Malgaigne's cases, it was produced by forcible adduction of the foot. In three-tenths by forcible abduction. In *seventeen*, the fracture was seated *immediately* above the malleolus. In *sixteen*, between the usual point of fracture (2 to 4 inches above the joint) and the middle of the bone. In *ten*, *through* the malleolus. In two only, *above* the middle. And in one at the middle. Thus it will be seen that the situation of the fracture of the fibula alone is widely different from that of the tibia alone, or of both bones together. Owing to the elasticity of this bone, to the support of the tibia, and the fact of its being covered at its upper and middle portions by a thick muscular cushion, it is evident that fractures of this bone, at its upper part, would be very unlikely to occur without fracture of the tibia also; and the same reasons render a fracture in this situation, when it does occur, extremely difficult to detect.

The fractures of the neck of the femur, in the table, include those of the trochanter major, called the impacted or nail-head fracture of the neck; many of them are of this character. Of the *forty-seven* fractures of the femur "above the middle," *nine* were *just below* the trochanters. And of the *seventy-one* "below the middle," *fifteen* were *just above* the condyles.

In fractures of both bones of the leg, that of the fibula is generally above that of the tibia; sometimes the fracture of the fibula is very near the head of the bone, while that of the tibia is at the lower third, as I have seen verified by dissection; and this fracture is very liable to be mistaken for fracture of the tibia alone. Of the *two hundred and forty-two* fractures of the leg "below the middle," *forty-four*, or more than one-fifth, were *just above* the lower articular extremity. Of the *twenty-seven through* the lower articular extremity, *thirteen* were Dupuytren's fracture, or that in which the tibia is broken through its malleolus, and the fibula about three inches above the joint. Most of the fractures *through the upper articular end* communicated with the knee-joint. With regard to the seat of fracture in the bones of the leg, Malgaigne does not give any very extensive information. He alludes to only sixty-seven cases, and classes them according as they are produced by direct or indirect causes. Thus, of 36 direct fractures, 18 were at or near the middle (*parte moyenne*), 6 at the inferior third, and 8 just above the malleoli. In one case the situation was not mentioned, and in one the fracture was double, occupying the superior and inferior thirds of the bone. He says this enormous proportion of fractures in the middle of the leg induces the belief that many of them have been caused by contre-coup, and at a different point from that which received the force of the blow. Of the 31 indirect fractures of the leg, 21 were seated in the inferior fourth, 3 between that and the middle, and 6 at the middle. In one the seat of fracture not mentioned.

Of the one hundred and fifty-eight fractures of the *clavicle* in our table, *forty-three* are recorded as having occurred at the *middle; four* at the junction of the *inner and middle third; sixty-seven* at the junction of the *outer and middle third; twenty-three* "near" the *acromial* extremity; and *three* near

the *sternal* extremity. Many of those noted as having occurred at the junction of the "outer and middle third" were, no doubt, at a greater or less distance to the inside or outside of this point, without being very near the middle, or "near the outer end." It is probable, moreover, that, in several instances, the fractures placed under this head (outer and middle third), should rather have been under that of *middle*, owing to mistaken diagnosis; as where the fracture is very oblique, and at this point it is apt to be set down as situated at the outer and middle third. We derive no satisfactory information from either Malgaigne's or Lonsdale's statistics, as to the ordinary seat of fracture of this bone. In one instance, there was a *double fracture;* one situated at the outer and middle third, the other near the acromion. It is not very uncommon for fracture of the clavicle to occur *at the outer end*, as I have myself seen several instances of it, and the cases do not appear in the table, because, requiring no specific treatment, and generally overlooked at the time the history of the case is written, the fact of its existence seldom appears in the heading of the case, and would, therefore, not be noticed in going through the books. It occurs from a blow, whether direct or indirect, received just on the point of the shoulder. The symptoms are, at first, mainly those of severe contusion, except that the pain, on pressure, over the extremity of the clavicle is more acute; sometimes a very indistinct crepitus can be felt immediately after the injury; but generally it is only after some days, when the swelling has subsided, and the products of inflammation have been absorbed, that crepitus can be distinctly made out.

In *three* instances, fracture of both clavicles happened simultaneously. In one, neither the nature of the accident nor the seat of fracture is mentioned. In one, the patient was pressed transversely, at the shoulders, between two railroad cars; the fracture of both was at the outer and middle third. In the third case, the injury occurred from the fall of a bank of earth upon the patient; the fractures were situated beyond the middle; in one, a little farther out than in the other. Besides these three, which all recovered, there is a specimen in the pathological cabinet of the Hospital, of simultaneous fracture of both bones, at the middle, firmly united, and with but

little deformity. Malgaigne says of this injury, "The simultaneous fracture of both clavicles is extremely rare. It has only happened once in two thousand three hundred and fifty-eight cases at the Hôtel Dieu. I have seen it but once myself, and have been able to collect but four other examples (from all sources)."*

Besides the above three instances, which were all that were noticed in running through the case books, I have a distinct recollection of a fourth case that has occurred within the last five years; both bones were broken at their middle, with considerable contusion of the soft parts; the patient was a stableman, and, being partially intoxicated, went into a stall in which a horse was standing; the horse, as he averred, kicked at him with both feet, which were planted, one over each clavicle, and thus produced the injury, and the fact of there being contusion over both, and none on either shoulder, would seem to corroborate his statement.

Of *sixty-six* fractures of the *lower jaw*, *eleven* were double, and *fifty-five* single. Of the latter, twenty-two were in the body of the bone, at some point between the *lateral incisor and the ramus;* twelve were very near the symphisis; six of the symphisis; three of the ramus; three of the neck of the condyles; one of the angle. In the other, the seat of fracture is not mentioned. Of the double fractures, one was of *both necks;* two were near the angle and near the symphisis; two near the angle, and at about the middle of the body; one at the symphisis, and in the middle of the body; one at the symphisis, and at the junction of the body with the ramus; one near the symphisis on one side, and in the middle of the body on the other; one at the middle of the body on either side. There is no instance mentioned of two fractures occurring on the same side of the bone; though, in two or three of the cases, it is not mentioned whether the fractures are on different sides or not. Of the *twenty-two* fractures "in the body of the bone," five were just anterior to the ramus.

Of the *thirty* fractures of the *patella*, 21 were transverse, one oblique, 6 comminuted or stellated.

* Traité des Fractures. Tom. 1. p. 494. Paris Edition.

Of *fourteen* fractures of the *scapula*, in which the situation of the fracture is mentioned, *two* were at the acromion; *five* were through the body below the spine; *one* of the posterior angle; *one* at the neck; *one* across the spine; *one* across the spine and body; one of the posterior edge, and one of the inferior angle. All the 17 cases of fracture of this bone recovered except three; two of which had also fracture of the spine, and one fracture of the skull.

Of the *twenty-three* fractures of the *pelvis*. In 4, the fracture was very extensive, involving the whole pelvis, in two of them being also complicated with rupture of the bladder. In 10, the fracture was of the *ilium;* in four at the symphisis; in one of these, there was separation at the symphisis of 2½ inches, without injury of the bladder, and also fracture of the ramus of pubes and ischium; in one, there was fracture through the sacro iliac synchondrosis, and through ramus of pubes, with rupture of iliac vein. In one the fracture was through the cotyloid cavity; in one it involved this cavity and the ramus of pubes. Of 12 which proved fatal, one was complicated with fracture of the thigh; one with laceration of intestines, and fracture of skull; one with rupture of the liver; *five* with rupture of the bladder; one with rupture of the iliac vein; one with compound fracture of the leg; one with extensive laceration of the soft parts; in the only remaining case, the pelvis was completely crushed, without material injury to any important organ. So that fracture of the pelvis is by no means a fatal injury, unless complicated with such lesions as scarcely admit a hope of recovery. The patients were all men in the prime of life, except two boys, one six, the other ten years old.

Of the fractures of the os brachii included in the table. Of the 20 fractures of the neck one was of the anatomical, the others of the surgical neck; the fracture "through the upper articular extremity" was an impacted fracture of the neck, this having been broken and also driven into the head, which was split. In 1845, Dr. Houston presented before the Pathological Society of Dublin, "three specimens of impacted fracture of the neck of the os brachii." (*Dublin Hospt. Gazette*, April 1.) This injury is very similar in its nature, and in the

manner of its production to the impacted fracture of the neck of the femur. Eight of the fractures "above the middle" were *just below* the neck. Fifteen of those "below the middle" were *just above* the lower articular extremity of the bone. A few of those "*through* the lower articular end" were only fractures of one or the other condyle. "These fractures" says Malgaigne (*Traite des Fractures, tom.* 1, *p.* 555), "judging from my own experience" (and referring to fractures of the *external* condyle), are the most common of all to which the (lower) articular extremity of the humerus is liable, and perhaps the most common of all which affect the elbow. These occur principally in young subjects, almost always from a fall upon the outer part of the elbow, which is forced against the trunk (rapproché du tronc)." This accords entirely with my own experience. The injury, however, like that of the outer end of the clavicle, is both apt to be overlooked, and regarded only as a contusion, and to be left out of the heading of the case from being of so little importance; for the injury demands no peculiar treatment. The fractures "through the lower articular end," when they occur in very young subjects (one to four years), are "probably" as Malgaigne says (p. 542), "a separation of the epiphisis." It very closely resembles a dislocation of the fore-arm backwards, and is sometimes difficult to be kept in place. With regard to these various fractures of the elbow, which are of the greatest importance, Dr Norris says:* "One of the most common of these, after fractures of the *inner condyle*, is that in which two fractures and three fragments are present, the humerus being broken transversely just above the condyles, and these last separated longitudinally." It will be seen from this extract, that Dr. Norris's experience in this particular, differs in a remarkable degree from that of M. Malgaigne and from that of the New-York Hospital. We have seen but very few examples of either species of fracture. The inner condyle, though more projecting than the outer, is scarcely ever exposed to injury from its situation, and it seems almost impossible that it should be fractured without a crushing or comminution of the elbow. Malgaigne says of it (*Op.*

* American Jour. Med. Sci. vol. 27, 1841, p. 329.

Cit. p. 560): "Dessault was the first to mention this fracture, after him, Charles Bell, enumerating fractures of the humerus near the elbow, cites those of the trochlea, and does not speak of the external condyle, as if the internal was alone exposed to this separation. Finally, Astley Cooper says, that this fracture is frequent, for the most part, among infants, but he has seen it also at a more advanced age. Notwithstanding this triple authority, I regard this lesion as very rare; I have never seen an instance of it myself; neither Dessault nor Charles Bell report examples of it. The only fracture which Sir Astley Cooper cites is one which was complicated with fracture of the olecranon, which indicates a compound fracture of the elbow." It may be mentioned that Dr. Norris does not cite any examples of the fracture which he speaks of as being so common; unless they are included under the general head of "fractures of the arm." As to the other species of fracture described in the above extract, we have seen but very few examples of it. Malgaigne says: "I have been able to collect but eight cases, four simple, four compound."

Of the fractures of the fore-arm. Of the 19 fractures "above the middle," four were just below the upper articular extremity, one was of the *neck of the radius.* Of this fracture, Lonsdale says: * "Fracture of the neck of the radius alone, is a very rare accident." * * * Sir Astley Cooper says, "This fracture I have heard mentioned by surgeons as being of frequent occurrence, but there must be some mistake in the statement, for it is an accident I have never seen, and if instances ever present themselves (which I do not mean to deny) they must be very rare." Of the 122 fractures through the lower articular end, which are called technically "fractures of the lower extremity of the radius," Barton's or Colles' fracture, one was through the articular extremity of both bones; in one, the styloid process of the radius was broken off, while the ulna was fractured 2½ inches above the wrist joint. In two cases, the fracture of the lower extremity of the radius was complicated with compound dislocation of the lower extremity of the ulna; one of these cases recovered with a stiff wrist joint, the other ended in amputation of the

* Treatise on Fractures, p. 139.

fore-arm, phlegmonous erysipelas having supervened. In several of the cases, both radii were fractured simultaneously.

Of the 12 fractures through the upper articular end of the fore-arm, 10 were of the olecranon process; one of the coronoid process; and one of the head of the radius, which was comminuted. Of fractures of the olecranon, Malgaigne gives only nine as occurring in eleven years at the Hôtel Dieu; he says that Hoin had not seen one case in thirty years' practice at the Hôpital de Dijon, and only two cases in his private practice. This could not have been because the accident did not happen, but because it was overlooked.

Of the fractures of the lower jaw, it is noted that 6 occurred at the symphisis; it is denied by many surgeons that fracture ever occurs exactly at the symphisis. On this point, Lonsdale remarks: "Some are of opinion that fracture of the symphisis never occurs, but that it generally takes place to one or the other side of it. Boyer says: never does fracture take place in the central point of the length of the jaw, called the symphisis of the chin, but the symphisis remains always on one of the fragments." "My own experience," says Lonsdale, "is certainly opposed to this assertion; for I have seen no less than three cases, where the bone was fractured exactly at the symphisis." In four cases, fracture occurred at the neck supporting the condyle; in one of them the fracture was of both necks. In one, the fracture was compound, and caused on an old man upwards of 70 by the thrust of a bull's horn precisely over the situation of the neck of the bone. This fracture is always regarded as a very rare one. Lonsdale says, "it may occur, but it is a very rare accident. Dessault mentions two cases." Malgaigne says he has never seen a case; and knows of but eight published cases.

The following table exhibits the *age* of the patients:

	1 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	over 70
Thigh, ...	49	57	59	46	40	12	8	5
Leg, ...	10	47	187	194	92	36	18	
Arm, ...	18	31	39	29	18	17	9	
Fore-Arm, . .	15	54	79	67	36	9	5	1
Clavicle. . . .	1	21	53	45	22	8	4	2
Patella, . . .		2	10	12	5	1		
Lower Jaw, . .	2	9	27	20	4	2	1	

It will be seen from the above table, that the greatest number of the fractures of the thigh, arm, fore-arm, clavicle, and lower jaw, occurs between the ages 20 and 30; of fractures of the leg, and patella, the greatest number falls between 30 and 40. Of the fractures of the leg, 65.80 per cent, or considerably over one-half occurred between the ages 20 and 40; while of the thigh, only 38.04 per cent. occurred in this interval. In the earlier years of life, between 1 and 10 years, fractures of the thigh are far more common than fractures of the leg; the per centage for the former being 17.75, for the latter only 1.71. Also, between the ages of 10 and 20, the per centage is greatly in favor of fracture of the thigh, it being 20.65; while for the leg it is only 8.11. On this point, Malgaigne says (*Op. Cit.* p. 781), "Fractures of the leg are very rare in early infancy; thus, of 515 cases, one only occurred at the age of four years, and only twelve from 5 to 15 years; there is thus in infancy a sort of antagonism between fractures of the leg and those of the femur." In the above table, the earliest age at which fracture of the femur occurred was *two* months; two occurred at two-and-a-half years. No fracture of the neck of the femur, whether within or without the capsular ligament, occurred below the age of twenty-three years, except two cases of separation of the upper epiphisis, one aged six the other one. In the latter years of life, the per centage does not differ in any great degree. The fractures of the thigh in children have usually occurred from falls, while walking or running along the ground, or from a moderate height. They are almost always situated at or about the middle of the bone.

Above the age of fifty years, the per centage is greater in fractures of the os brachii than in any other bone, it being 11.25; for the fore-arm, only about 3 1-2, and this agrees with Malgaigne's experience. It will be seen that fractures of the clavicle, patella, and lower jaw, are rare in children; there being only one of the clavicle under ten years, *two* of the jaw, and none of the patella. Of the latter bone, but few fractures occur under the age of twenty, or above the age of forty-five. The per centage of fractures of the lower jaw, like that of the leg, ranges very high between the ages of twenty and forty; being 72.30, and this again agrees with the French statistics.

The two following tables exhibit the proportion of the sexes, and the side of the body upon which the fracture occurred.

	Right.	Left.	Male.	Female.	Per Cent.
Thigh,	104	100	250	30	10.71
Leg,	224	223	515	64	11.05
Arm,	54	59	143	18	11.18
Fore-Arm,	44	39	300	40	11.76
Lower End of Radius,	34	35			
Clavicle,	65	64	131	27	17.09
Patella,	14	8	27	3	10.00

The above table shows very little disproportion between the relative frequency of fracture on the two sides of the body in all the bones except the *patella*, and the number of recorded fractures of that bone is too small to draw any definite conclusions.

The table also shows a remarkable agreement in the relative proportion of the sexes, in all the bones except the *clavicle*, in which the proportion of females is relatively high. The aggregate per centage of females is 11.16. Malgaigne says, that fractures of the *body* of the *femur* are more common among men than among females, 145 to 62, or nearly 30 per cent. He says, "on the contrary, fractures of the neck of the bone are more common among females," 56 to 48. This result, one would be led to anticipate. For, owing to the manner in which this accident usually occurs, a fall upon the trochanter major, we should suppose that females would be *as liable* to it as males, and owing to the different anatomical condition of the part in the two sexes, we would also suppose, *a priori*, that the accident would be *more* likely to result in fracture in the female than in the male. In fracture of the *leg*, Malgaigne's proportion of males to females is as 2 to 1. But he says, "this proportion is far from being the same in all ages." "Thus, from infancy to fifty years, the proportion is as 3 to 1. From fifty to seventy-five, the proportion is nearly the same. Past seventy-five years, the proportion is greatly in favor of females, 8 females to 3 males." Females, according to our French authority, are much more exposed to fracture of the *arm* in old age, than males. Thus, between two and twenty years, one-fifth were females; twenty to forty-five,

one-fourth; forty-five to sixty, more than two-thirds; sixty to eighty years, more than one-half. "For the *fore-arm*, the proportion (of the sexes) he says, "is equal from two to fifteen years—from fifteen to twenty we have eighteen males for one female—from twenty to forty-five, the number of males is double that of females. Past forty-five the number of females is equal, or even beyond that of males." "Fracture of the *clavicle*," he says, "seems to be more common among females than among males. In the Hôpital des Enfants, however, there were more fractures among males than females."

The following table indicates the season in which the various fractures occurred. The fractures of the *lower extremity of the radius* are arranged separately from the other fractures of the fore-arm, because this fracture is peculiar in itself, and in the manner of its production.

	Jan.	Feb.	Mar.	Ap'l.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Thigh, . .	15	19	25	31	27	20	23	27	31	28	17	13
Leg, . . .	55	38	53	47	56	40	37	43	45	50	44	44
Arm, . .	11	9	9	12	15	14	20	6	12	18	9	17
Fore-Arm, .	16	6	11	14	17	19	17	16	15	14	5	14
Lower end of Rad.	8	5	6	3	6	8	7	5	8	9	11	6
Clavicle, . .	14	12	8	8	18	17	11	10	17	11	21	9
Patella, . .	1	2	1	7	1	2	2	3	2	3	2	3

We see, from this table, that for the warm months of May, June, July, August and September, the per centage is 43.22; for the cold months of November, December, January, February and March, it is only 38.82. The aggregate number in each month varies but little, except in the months of February and August; in these two months it falls considerably short of the average, which is rather remarkable, as one is the coldest month of winter, the other the warmest month of summer. The greatest number of fractures occurred in the months of May and October, being nearly equal in the two.

The idea was originated by Ambrose Paré, and has been entertained by many surgeons since his time, that bones are more fragile in winter than in summer; but a little reflection will convince any one that there is but little foundation for this opinion, for the temperature of the body is maintained at the same point at all seasons of the year, and it is exceedingly doubtful whether even the most superficial bones are at all affected even by sudden changes in the temperature of the

atmosphere. The tibia and clavicle are the most superficial bones in the body. According to our statistics, there were, of the former, 234 fractures in the winter, and 231 in the summer, showing a very inconsiderable difference in favor of the cold weather. Of the latter, there were 60 fractures in the winter, and 73 in the summer, showing a very considerable difference in favor of warm weather. The aggregate result of the above table seems also to conflict with this opinion, for it gives more fractures in the warm than in the cold months, yet it may be looked upon as favoring it, if we take into consideration the fact that, by far the greater number of subjects of these fractures were boatmen and laborers, whose work, or that kind of work which exposes them most to severe injuries, is suspended in a great degree during a considerable portion of the cold season. Hence we may infer that, had their work gone on regularly through all the months of the year, the proportion of fractures would have been much greater for the cold than for the warm season. But this is not owing to the greater fragility of bones in winter; the reason is explained by Malgaigne in the following paragraph, which also coincides with the ideas which we have just been advancing. "A considérer nettement les choses, il y a sans doute plus de chutes en hiver, à raison du pavé glissant; mais ces chutes sont légères en général, tandis que en la belle saison, où les grands travaux de maçonnerie, de charpente, &c., repremeant leur cours, les chutes se font de haut, et sont bien autrement dangereuses. Et ce n'est pas là une pure hypothese; vous allez voir, en effet, que les adultes qui s'adonnent à ces grands travaux fournissent tout antant de fractures en été qu'en hiver, tandisque pour les vieillards débiles, l'hiver est la saison la plus périlleuse."—*Op. Cit.*, p. 6.

In winter, according to Malgaigne, fractures are more frequent among females, relatively speaking, than among males. Thus in summer he had 819 males and 297 females; in winter, 861 males and 400 females. And the reason is readily seen in the fact that the accidents which usually produce fractures in females, falls upon the pavement, or slipping from stairs, &c., are much more likely to occur in the cold season. For the same reason, the proportion of fractures among very old men is greater in winter. On the contrary, the French

statistics show that fractures among children are much more common in summer than in winter, of which, the fact that children are much more confined to the house, and much less engaged in those sports which usually produce fractures among them, in the one season than in the other, offers a ready explanation.

With regard to the influence of season on the fractures of particular bones or of different parts of the same bone, Malgaigne says that for fractures of the body of the femur, the augmentation in winter is only one-twelfth, while it is one-fifth in fractures of the neck. Of fractures of the leg, he met with 201 in summer, and 314 in winter. Of fractures of the arm, there were 89 during three months of winter, and 66 during three months of summer. In spring and autumn, they were nearly equal. Of 45 cases of fracture of the patella, 27 occurred in the winter. By a comparison of Malgaigne's tables of sex and season with ours, it will be seen that they differ very essentially, for which I cannot satisfactorily account; it is probable that the proportion of females admitted to the Hôtel Dieu is greater than in the New-York Hospital, which may serve as an explanation, more or less complete, of the difference in results with respect to sex; and the difference in climate, in the proportion of cold to warm weather, and the different habits and customs of the people of the two countries, may serve to explain the difference in the tables of season.

The following table includes all the fractures of the Sternum which the case books furnish for the period of twelve years.

No.	Sex.	Age.	Date of admission.	Date of discharge.	Seat of fracture.	Result.
1	M	36	Mar. 25	Mar. 25	Between 2d and 3d ribs	Died
2	M	25	May 23	May 23	Upper third	Died
3	M	23	Feb. 19	Feb. 26	Junction of manubrium with body	Cured
4	M	35	Sep. 26	Sep. 29	" "	Died
5	M	45	Oct. 26	Dec. 12	" "	Cured
6	M	30	Nov. 14	Nov. 25	Middle	Cured
7	M	34	Dec. 18	Jany. 7	Manubrium	Cured
8	M	48	Aug. 2	Aug. 19	Body	Cured
9	M	52	June 30	July 28	Upper part	Cured
10	M	23	Dec. 24	Dec. 24	Junction of Manubrium with body	Died
11	M	45	Nov. 4	Nov. 28	Not mentioned	Cured
12	M	30	Jan. 24	Feb. 1	Between 2d and 3d ribs	Died

No. 1. This fracture was comminuted. There was laceration of the pericardium, contusion of the heart, and fracture of the cervical vertebræ. Was struck on the chest by a bale of hay on board a vessel, and precipitated twenty feet into the hold. No. 2. The lower fragment was driven into the pleura, liver lacerated, leg fractured. Fell from the topmast of a vessel, 45 feet, striking upon the rail. No. 3. Was drawn over a shaft driven by steam power, went to work a week after his discharge, without any ill consequences. There was considerable displacement; upper fragment thrown backwards; corrected in a considerable degree, by placing a pillow between the shoulders. No. 4. Rupture of kidney and other internal injuries; jumped from a window, striking his chest against the edge of an area. No. 5. Fracture of left clavicle and ribs. Large block of marble fell against his chest, crushing him against another block. No. 6. Fell ten feet, striking his breast against the edge of a plank; displacement considerable. No. 7. Happened from a fall. No. 8. Fell from a ladder, 30 feet. No. 9. Fell into a cellar. No. 10. Rupture of liver, lung, &c. No. 11. Fell down a hatchway. No. 12. Fell from a height. No separation of fragments. Compound fracture of left thigh, of right leg, and fracture of both radii and carpus.

We have included the fractures of the sternum in a separate table, because an unusually large proportion of them have occurred in this hospital, and because the fracture is, comparatively, very rare, and therefore it is important to have all the particulars of each accident. Moreover, I think the danger of this accident has been very much exaggerated; thus we see, that out of twelve cases there were only five deaths; four of these were necessarily fatal from the complications, and the fifth was almost necessarily mortal, there being also compound fracture of the thigh, fracture of leg, also compound, and fracture of both fore-arms. Of this fracture, Malgaigne says,—"It is extremely rare; but one example has happened in eleven years at the Hôtel Dieu; and out of 1,901 fractures observed by Lonsdale at the Middlesex Hospital, he has only noted two cases." At the Pennsylvania Hospital, as we have seen, it has been more common, but much less so than in this

hospital. This fracture sometimes happens from muscular action; thus, says Malgaigne,—"Chaussier has seen two cases which occurred during labor in primipara; both at the moment of rupture; they had the head thrown backward (renversé fortement en arrière) and supported themselves, at the time, upon their heels and arms. Le renversement de la tête occurred in a case of another kind communicated by Mr. Faget, professeur au Mexique. A mountebank, exhibiting his strength in a public place, had bent the body backward for the purpose of raising, with his teeth and hands, heavy weights; on a sudden, he felt a sharp pain in the sternal region, and fell backward with a fracture of the sternum." "There is," says Malgaigne, "one remarkable peculiarity in these fractures; they are all seated *above* the articulation of the first piece of the sternum with the second." He relates another remarkable case of fracture by muscular action, which occurred from violent efforts in vomiting, in a man affected with cancer in the stomach; the man died; "the bone was diseased an inch above the fracture, but sound at the level of the fracture itself."

So far as we can judge from these few cases, it would seem that the seat of fracture from muscular action is, as a general rule, above the junction of the manubrium with the body of the bone. I have seen no cases of fracture by muscular action myself.

These tables will no doubt appear very defective to many, from the absence of all statements as to the amount of shortening in the several fractures, the deformity, the amount of the impairment of use, and the period at which union was perfect. Had I found these facts stated in the histories of the cases, they would have had a place in the tables, but it is of little importance, as I am able, from personal experience of several years in the practice of the hospital, and conversation with other surgeons who have been connected with it, to give average results as to these particulars, which is all we aim at. As to the period at which union of the different bones took place, it is scarcely necessary to remark, as this is pretty well established in the different works on Surgery; and there is such a variety of collateral circumstances in the individual

cases tending to hasten or retard the deposit of bone, depending on constitutional condition, medical and surgical complications, condition of the atmosphere of the ward, &c. As to the perfection of the cure, depending on the amount of deformity, impairment of use, shortening, &c., the definition given by Dr. Hamilton, in his fracture tables, is a very fair one to adopt. He says—"I call a limb perfect when there is no striking deformity, shortening, or maiming." Therefore, it strikes me that a patient should be well satisfied if, on the expiration of a year after an ordinary fracture of the lower extremity, or six months after a fracture of the upper, there is no impairment of motion, no limp in his gait, and no marked deformity to be noticed by an unprofessional observer, when the clothes are off. And I may safely say that this is the condition of a very large majority of our patients after their discharge. It is very rare for us to have any striking deformity in a simple fracture, or in a compound, if the patient is tractable, as most of them are, and the case uncomplicated by *delirium tremens.* Though it cannot be denied that we do, now and then, among such a large number of cases, and when an unusual number of bad cases occur, and the attention is thus diverted from the simple fractures, have a little more deformity, or shortening, or a little more rigidity of a joint, than we consider up to the point of surgical perfection; such occurrences are incident to every large hospital.

In patients discharged from this Hospital after fractures, it is impossible to say that the case is *perfect* in the true sense of the term, or even in the surgical sense which we have given it; because they are, for the most part, discharged as soon as union of the bone has become firmly consolidated, and they are able to bear the limb upon the ground. But under the very best treatment, and with the best results, it is usually months after this before a perfect use of the limb is obtained; and it is impossible, and would be useless to retain them in the hospital for so long a period. This is peculiarly the case in fractures near the joints; there is always more or less rigidity of the latter following the cure of the fracture, and perfect freedom of motion, if it is ever regained, can only be so after the lapse of months, by constant and persevering use. And so

there is often, about a well-united fracture, an exuberant deposit of callus, which may render the limb a little unsightly in appearance; but we know that this is unavoidable, and will be removed by time; therefore we say that the cure is perfect; that is, there is uo deformity, and no impairment of motion, which will not be removed by time, and by attention to the directions of the surgeon. Fractures in the vicinity of the larger joints, or those involving those joints, as where the tibia is split into the ankle or knee joint, or the lower extremity of the femur into the latter joint, are always more or less uncertain in their results, even under the best surgical care, and the probability of anchylosis should always be borne in mind in giving a prognosis, and with regard to the position of the limb during the treatment, which should always be such as to give the patient the best use of the limb in case of this unfavorable termination. Still, in ordinary cases of this kind, by commencing passive motion at the earliest possible period, and continuing it faithfully, especially when we have the persevering coöperation of the patient himself, we generally succeed in retaining, in a great degree, the motion of the joint.

As to fractures of the clavicle, in which so much depends upon the patience, the tractability, and the endurance of the patients themselves, it not unfrequently happens that more or less deformity will remain at the completion of the treatment, especially when the fracture has occurred in the middle third of the bone, and is very oblique; but this result rarely happens when the patient has strictly followed the directions of the surgeon, as to position especially; for it is by position, more than by any other remedial means, that a good result is to be effected,—the persevering continuance of the supine position in bed, with the head low, and, if necessary, a pad between the shoulders.*

As to the shortening after fractures of the long bones, I will premise by saying that this is, in our opinion, not to be regarded at all, except in one bone, and that the femur. In the other bones, if it should exist at all, it is of no sort of practical consequence, except so far as it may give rise to deformity, which

* This is the treatment uniformly adopted by Dr. Buck in the Hospital, and the results of his treatment are certainly such as to recommend it highly.

we have sufficiently considered in the preceding remarks. The determination and enumeration of the shortening in fracture of the *clavicle*, or the *humerus*, or the *fore-arm*, for instance, is an unnecessary refinement in surgery, and has nothing to recommend it; for suppose the clavicle, or the os brachii, or the fore-arm, to be an inch or more shorter after the treatment, does it impair the use of the limb, or will any one perceive it, even the patient himself, without accurate measurement? Of what use is it to inform the patient that his injured arm is an inch or a quarter of an inch shorter than the other, if it cannot be noticed by actual inspection, and does not in the least degree impair the use of the limb? In fracture of the clavicle, a shortening will of course give rise to corresponding deformity, and it is in reference to this merely that it is to be dreaded, and, if possible, avoided.

In fracture of the leg proper, if there be no considerable deformity, there will be no appreciable shortening; and in most cases, even when the deformity is marked, the shortening is inconsiderable. I have measured, out of curiosity, a number of fractured legs, and have never found any shortening which could possibly give rise to a perceptible limp, when there was no loss of bone; and I have found this so even in cases of comminuted fracture. For several days after the occurrence of the fracture, there is considerable shortening: but, gradually, as the irritation and inflammation, and the consequent spasmodic contractions of the muscles subside, the bones fall into their natural position, the fractured surfaces approach, and become adapted to each other, and by the time the cure is completed the shortening is not generally perceptible, even on measurement; and this without any effort at extension, or any means of keeping it up. It is this self-adjusting power of fractured bones which gives such good results in fractures of the leg treated merely on cushions, (which is not our plan,) without any surgical appliance other than a simple fracture box; which is the ordinary custom at the Pennsylvania Hospital. We also notice this self-adjusting power in fractures of the femur in young children from two to five years. During the progress of the treatment, there is always an obstinate and even unconquerable tendency to twist the pelvis with the upper

fragment away from the apparatus, whether it be a double inclined plane, or a straight apparatus; the consequence of this is, that for the first three or four weeks there is an awkward bowing outward at the seat of fracture, caused, no doubt, by the projection of the upper fragment, and returning as often as it is obviated by arranging the apparatus. After this period, it is noticed, from day to day, that the tendency to bow out is becoming less marked, and by the time consolidation of the fracture has taken place, the union is perfect, and no deformity is observed, except perhaps from the deposit of callus.

In fractures of the femur, the great object of the treatment is to prevent shortening, for if there be no great shortening, there will be no deformity; and any great degree of shortening will probably render the patient a cripple for life, and perhaps seriously injure the reputation of the surgeon. Extension, therefore, in this fracture, and in this alone, is of the first importance. For this purpose, various contrivances have been invented. It would be out of place here to go into a history of these appliances, because one only is in use in the New-York Hospital, and this has been employed exclusively ever since I became acquainted with its practice; though it has undergone some important modifications during this period. It is a modification of Physic's modification of Dessault's straight splint, and resembles more the apparatus at present in use in the Massachusetts General Hospital, with some important differences, however, than any other with which I am acquainted. In the Pennsylvania Hospital they still employ Physic's splint, and reject the screw extension power.

In speaking of shortening in fractures of the thigh, I am aware that it is treading on somewhat delicate ground; for it is quite common for surgeons in private practice, and for surgeons of some eminence, too, and even for surgeons attached to some hospitals, to say that, as a general result, they get union of the femur *without any shortening;* and to accuse those who have taken the trouble to ascertain the amount of shortening in their cases, and who have had the candor to admit it, of carelessness or want of skill.

From the opportunity I have enjoyed of examining numerous cases of this fracture, and in conversing with surgeons

attached to this and other hospitals on the subject, I am prepared to coincide entirely with the opinion of Malgaigne, who says, in his Traité des Fractures, so often referred to in this paper,—"The misfortune of those who have thought that they have obtained these perfect cures, is, that they have not even thought of measuring the comparative length of the two limbs; I say, moreover, that they are often ignorant of the conditions of a good and faithful measurement."* He says also,—"Many distinguished surgeons of our time have recognized this impossibility (of preventing shortening), and, in consequence, have rejected permanent extension." There are fractures of the femur, however, as Malgaigne admits, which may be cured without shortening, but, in almost all of these, the fragments are so interlocked (maintenu par leurs denteleures réciproques) that there was no shortening from the first, which could only have been ascertained by measurement. One means which surgeons have adopted to determine as to the existence or non-existence of shortening, is to observe, when the cure has been fully completed, whether there is a perceptible limp in the gait; if not, they persuade themselves that there is no shortening. But the fallacy of this test (though sufficient for all practical purposes) is obvious when it is known that in nine cases out of ten there will be no limp, though the shortening by measurement amounts to one-half or three-quarters of an inch; and I have seen patients walk some months after the cure of a fractured thigh, without any perceptible limp, with an inch or even more of shortening, and without the aid of a thick-soled or high-heeled shoe. This I have assured myself of by actual observation and measurement, and so have many of the other surgeons who have been and still are connected with the hospital. We see the same result sometimes after compound fracture of the leg, when a portion of the whole calibre of the bones has been removed. A shortening, however, which will give rise to a perceptible limp in one person, will not be observed to affect the gait of another in any degree. It is probable that

* "Le malheur de tous ceux qui ont cru obtenir de ces guérisons miraculeuses, c'est qu'ils n'ont pas même songé à mésurer comparativement les deux membres; je dirai plus, c'est qu'ils ignorant le plus souvent les conditions d'une bonne, et fidèle mensuration."—P. 724, tom. i.

the pelvis adapts itself in some degree to the altered length of the limb, when it is considerable. Many surgeons think it only necessary to place the limbs side by side, and thus compare their relative length, to determine whether there be any shortening; indeed this has been almost the universal practice, and yet this mode is as fallacious as the other, for when the two limbs are apparently most accurately adjusted side by side in a line with the trunk, the shortened limb, from some cause or other, very frequently appears the longer, and the relative length of one may be made to vary at least an inch in appearance by an inappreciable change in its position with respect to the trunk. I am confident that an inch and a quarter of shortening might be, in many cases, overlooked in an examination conducted in this manner, so that no surgeon is prepared to say that his cases have recovered without shortening, until he has carefully measured the two limbs; and this measurement requires considerable tact and practice. The points we select are the anterior superior spine of the ilium and the inner malleolus, taking care to have the patient properly arranged on a hard mattress; when these points are tolerably prominent, as we usually find them, the measurement can be accurately made out; perhaps the variation of an eighth of an inch might take place. When these points are less prominent, as they are apt to be in fat persons and in females, the probable variation will perhaps amount to one-fourth of an inch. We do not trust to one measurement, but to the comparative results of two or three.

Having premised these observations, which we have felt compelled to make at some length in order to clear the surgeons attached to the New-York Hospital of any imputation of neglect, or want of skill in treatment of fractures, when we say that our average shortening in fracture of the femur has been three-quarters of an inch; and that while we do, now and then, get a cure without shortening, especially in children, the difference in length is sometimes an inch or more, even with the most attentive care. For the past few months we have adopted a new mode of keeping up extension of fracture of the femur, which is far more comfortable to the patient than any other, and promises much better results than those which we

have promulgated in this paper. In six cases recently treated here in this manner, where the shortening was an inch or more by measurement at the commencement of the treatment, in two, there was at the end of the treatment absolutely no shortening; in all the others but one, less than half an inch, and in this one less than three-quarters. This useful adjunct consists in the employment of broad strips of adhesive plaster, (two and a half or three inches,) which are applied to the limb previously shaved, on either side of it, from a little above the knee to below the foot, where it is secured to the ring at the end of the screw by means of a stick and cord, so that the plaster shall not be wrinkled. These two straps conjointly extend around about two-thirds or three-fourths the circumference of the limb, and are then confined by a single roller bandage. To prevent slipping of the plaster, the extension is not applied until some hours after the application of the former to the limb. This improvement in surgery, which is certainly one of the most valuable that has been suggested for many years, is, I believe, due originally to Dr. E. Wallace, of Philadelphia, and is mentioned in the last American edition of Druitt's Surgery. It has been recently recommended by Dr. J. Crosby, in the New Hampshire Journal of Medicine. The mode of applying the plaster recommended by Dr. Wallace is not so efficient as that adopted by Dr. Crosby. The stick at the loop of the strap to prevent its wrinkling and consequent liability to tear, and a brace at its sides, below the sole of the foot, to prevent pressure on the malleoli during extension, have been added in this hospital, and have been found to add much to the efficiency and comfort of the contrivance.

ART. III.—*Maguey, or Agave Americana; a Remedy for Scorbutus.* By GLOVER PERIN, M. D., Assistant-Surgeon U. S. Army. Communicated by order of THOMAS LAWSON, M. D., Surgeon-General U. S. Army.

FORT MCINTOSH, Laredo, Texas, May 7, 1851.

SIR:—A few days after my communication to the Surgeon-General, of the 9th ult., finding, as I had anticipated, that the number of cases of scorbutus were still increasing, and that the lime-juice, the only effectual remedy, could be procured

in but limited quantity, I was induced to look for relief in some other way; the inquiry presented itself—whether the citizens of the town of Laredo, who are alike destitute of vegetables, had not been affected with this disease? and, if so, what domestic remedies had they used?

I was informed by the Curate of the town, an intelligent Catholic priest, that a few cases had come to his knowledge, and that he once suffered from an attack of scorbutus in his own person. He gave me an account of his own case, and of the domestic remedies resorted to.

He stated further, that he left his bed on the 9th day from the time he commenced the use of his remedies, and that by the 15th, he was so far recovered as to resume his parochial duties. He did not know to what agent he should attribute his rapid recovery, but expressed his belief in the superior efficacy of warm bathing, which he used daily.

Among the domestic remedies which he used, and the one which appeared at once to my mind as the chief, was the *Maguey*, or *Agave Americana*. This plant is mentioned among the unofficinal articles in the U. S. Dispensatory as the American Aloe, and "is said to be laxative, diuretic, and emmenagogue." As officinally described, it is the Agave Americana; *Nat. Order* Bromeliaceæ; *Sex. Syst.*, Hexandria Monogynia.

As the Maguey appeared to be the remedial agent in the Curate's case, I determined to make a trial of its effects upon some of the patients suffering from the scurvy in this command. The following cases were selected:—

Private Turby, of Company "G," 1st U. S. Infantry, was admitted into hospital March 25th, in the following state: Countenance pale and dejected; gums swollen, and bleeding; left leg, from ankle joint to groin, covered with dark purple blotches; leg swollen, painful, and of stony hardness; pulse small, feeble; appetite poor; bowels constipated.

He was placed upon lime-juice, diluted and sweetened, so as to make an agreeable drink, in as large quantities as his stomach would bear; diet generous as could be procured, consisting of fresh meat, milk, eggs, &c.; vegetables could not be procured.

April 11th.—His condition was but slightly improved; he was then placed upon the expressed juice of the maguey, in doses of f. ʒij. three times daily; same diet continued.

April 17th.—Countenance no longer dejected, but bright and cheerful; purple spots almost entirely disappeared; arose from his bed and walked across the hospital unassisted; medicine continued.

May 4th.—So much improved as to be able to return to his company quarters, where he is accordingly sent; medicine continued.

May 7th.—Almost entirely well; continue medicine.

Private Hood, "G" Company 1st U. S. Infantry, was admitted into hospital April 10th. His general condition did not differ much from private Turby's. He had been on the sick report for eight days; had been taking citric acid drinks, but grew gradually worse up to the time of his admission, when he was placed upon lime-juice until the 13th, at which time no perceptible change had taken place. On that date he commenced the use of the expressed juice of the maguey; same diet as the case above described.

April 21st.—General state so much improved, that he was sent to his company quarters.

May 22d.—Well; returned to duty.

Eleven cases, all milder in form than the two just related, were continued upon the lime-juice; diet the same. On the 21st April they exhibited evidences of improvement, but it was nothing when compared with the cases under the use of the maguey.

Seven cases were under treatment during the same time, making use of citric acid. On the 21st April, no one had improved, and three were growing worse.

At this time, so convinced was I of the great superiority of the maguey over either of the other remedies employed, that I determined to place all the patients upon that medicine. The result has proved exceedingly gratifying; every case has improved rapidly from that date. The countenance, so universally dejected and despairing in the patients affected with scurvy, is brightened up by contentment and hope in two days

from the time of its introduction; the most marked evidences of improvement were observable at every successive visit. From observing the effects of the maguey in the cases which have occurred in this command, I am compelled to place it far above that remedy which, till now, has stood above every other—the lime-juice.

This no doubt will appear strong language, but further experience will verify it.

The juice of the maguey contains a large amount of vegetable and saccharine matter, and of itself is sufficiently nutritious to sustain a patient for days.

This succulent plant grows indigenous in most parts of the State, and, if I am correctly informed, in New Mexico and California. In Mexico it is well known as the plant from which they manufacture their favorite drink, the "Pulque," and grows in great abundance. As it delights in a dry sandy soil, it can be cultivated where nothing but the cactus will grow; for this reason, it will be found invaluable to the army at many of the western posts, where vegetables cannot be procured.

The manner in which it is used is as follows, viz.:—The leaves are cut off close to the root, they are placed in hot ashes until thoroughly cooked, when they are removed, and the juice expressed from them. The expressed juice is then strained, and may be used thus, or may be sweetened. It may be given in doses of f. ʒij. to f. ʒiij. three times daily.

It is not disagreeable to take, and in every instance it has proved to agree well with the stomach and bowels.

After the leaves have been cooked, the cortical portion near the root may be removed, and the white internal portion may be eaten; it appears to be a wholesome and nutritious food. I have seen muleteers use it in this way, and they seem to be very fond of it. I have been informed, upon good authority, that several tribes of Indians in New Mexico make use of it in the same manner. The use of the leaf in this way, I believe, will ward off most effectually incipient scorbutus.

The great benefit I feel confident will accrue to the army by the introduction of the maguey as a remedial agent in the treatment of scorbutus, has induced me to address you at some

length upon this subject; its importance, therefore, is my apology for the length of this communication.

I have the honor to remain,

Very respectfully your obedient servant,

(Signed), G. PERIN, Asst. Surg., U. S. A.

Bvt. Brig. Gen. TH. LAWSON,
Surgeon-General U. S. Army, Washington, D. C.

ART. IV.—*On Spontaneous Small-Pox.* A paper read before the Chenango County Medical Society, June 10th, 1851. By WILLIAM D. PURPLE, M. D., of Greene.

THERE is no class of diseases of more importance to the physician, than those denominated contagious,—none where his responsibilities are more apparent, and where he is held more strictly accountable for his diagnostic views. The immediate cause of this class of diseases is looked for only in *specific contagion.* This all will admit is the most common cause; and writers have usually contented themselves with endeavoring to define the laws by which it is governed, and a very few only have admitted that it is *possible* that they may be produced without contagion; and, by the manner this is said, we should infer that the *probability* of such an event is problematical. The subtlety of the principle of contagion is so great, that it is impossible to subject it to the ken of our senses, or comprehend the *modus operandi* of its action. Hence the imagination has full scope in the field of possibility, to account for every case that presents itself by this more common mode.

It is true that many individuals, both in and out of the profession, are willing to admit that the milder diseases of this class, such as chicken-pox and measles, may occasionally present themselves without exposure; yet their credulity is very much taxed to enable them to acknowledge that the small-pox may appear among us spontaneously, and spread disease and death in its most loathsome form. Among all our standard authors, the definition of this disease contains the authoritative words, "produced by specific contagion," and, in a few instances only, in our periodicals, has this implied position been controverted.

If this was a matter of no moment, and was merely intended to advance and sustain a speculative opinion of little or no practical value attached to it, I would not trouble you with facts and arguments in relation to it. But as it is a subject of great practical importance in the diagnosis of this disease, it becomes us to be alive to the truth on this subject, lest we expose, through our mistaken views, the lives of others, and neglect to exercise our professional authority in the sanitary regulations of community.

If it should be said that the sequestered location of the country physician may ill qualify him to investigate this subject, and that his opinions or his experience should have little weight with the profession, it must be borne in mind that the thronged multitude that is under the professional eye of the city physician is daily exposed to the small-pox, and hence he is never justifiable in considering a case as spontaneous, in opposition to the more common cause of contagion, to which every individual may be directly exposed. It will appear, therefore, that the more rural the location, the more remote from known causes, and in a community where it would be impossible for it to exist without the knowledge of all, is the most favorable to investigate the facts on which this truth depends.

It must be assumed that there was a time when all contagious diseases had their origin in the human family—that a combination of causes, either internal or external to the physical system, or both combined, must have produced and developed the animal poison on which contagion depends. If this be admitted, it leaves little else for us to do but to point out the physical statistics by which it may be elucidated, and, as far as our limited means will allow, to inquire into the pathological changes on which the frequency of this combination of causes depends.

It is a characteristic of the exanthemata that they invade the system but once; though this is far from being a universal law, yet the exceptions are exceedingly rare. So far as the minor diseases of this class are concerned, all expect to be subject to them once, hence little effort is made to avoid them, or critically to trace their origin. They often manifest

themselves in the most secluded localities, when it is impossible to trace them to a foreign source, and no medical or well-informed individual will doubt that they often appear spontaneously and entirely independent of contagion.

We see similar characteristics in animals of the canine species. Hydrophobia will appear without the possibility of exposure. The animal literally "runs mad," and secretes in his own person the most violent animal poison, that is subsequently the origin of extensive disease and death. This last-mentioned disease is worthy of a thorough examination, as one affording certain analogical data to illustrate our subject. It appears spontaneous in the canine species alone, is a disease that is indigenous only in that class of animals. It also appears only when he indulges in his carniverous propensities, and subsists almost entirely on animal food; superadded to this state of his physical system a certain amount of mental irritation called madness, not as a *consequence*, but as a *cause*, seems essential to its development. We also see this principle illustrated in the natural secretion of the venomous serpent; his natural appetite and habits are essential to the secretion of his animal poison, as when he is deprived of animal food, and subjected to the physical and mental discipline of the cage, his fangs are disarmed of their venom, and he becomes harmless.

It thus appears that a combination of causes entirely confined to the physical system, without apparent extraneous aid, is essential to the production or generation of the most violent animal poisons; and it may reasonably be inferred by analogy, that all the poisons to which the human system is liable, may occasionally be generated in the same manner.

What the combination of causes is, on which the spontaneous appearance of the small-pox depends, it is impossible definitely to determine. The subtlety of all the phenomena of this disease lies hidden in the recesses of nature, and far beyond the ken of human vision. The physical condition of the system *before* its advent, that renders it susceptible to its invasion—the change that takes place *after* it has presented itself, that renders the system nearly or quite exempt from future attack—as well as the *modus operandi* of the contagion

itself, are all topics that the human senses cannot grasp, nor finite reason clearly elucidate. Hence the extreme difficulty of proving a negative, and showing conclusively that the disease in a given case did not proceed from contagion. It is only by a faithful examination of all the circumstances in a series of cases that we can arrive at reasonable deductions on this subject, and form rational conclusions for our practical advantage. To this end I venture to enter this hitherto untrodden field, and relate a few instances of the spontaneous manifestation of the small-pox that have fallen under my own observation, in the hope that others, whose field is more extensive, will take up the subject and more thoroughly investigate the phenomena on which its truth or falsity depends.

CASE 1.—The first case to which I shall allude occurred in the town of Greene, near Coventry, in the month of January, 1831, in the person of Mr. Ransom Horton, aged about forty years. He had enjoyed uninterrupted health, with the exception of an ulcer on the tibial side of one of his limbs, which had annoyed him for some years. At the period of the advent of the disease, he was at work, with no other company than a young lad, in a small factory for the manufacture of rakes, some quarter of a mile from the highway. His wares were carried away in the summer, and no stranger had been at the shop. He had not been from home in many months, and his taciturn temperament led him little into society, at least with strangers. In this case the premonitory symptoms were well marked, and of the ordinary duration; indeed, all the symptoms were perfect, and such as indicated unusual severity. They ran on until the 12th day of the eruption, and terminated fatally.

Every exposed person who was subject to the disease received the contagion; and many who had had the variolæ vaccinæ, or the vaccine disease, were more or less afflicted by it. There were about forty well-marked cases that arose from exposure to this patient, three of which proved fatal. Public attention was early called to the subject, and, in the end, became very much excited in relation to its origin. Professional inquiry was had in requisition to fathom the mystery—the

populace raised high its voice, and, in entire confidence that it could not appear except by contagion, every one had a cause. Imagination was on tiptoe—fear expanded wide the ears of credulity—and malignity, with its criminating tongue, lent its aid to investigate the origin of the disease. Nor was this all. Courts of Justice, with their talented advocates, were called in to unravel the mystery; but all in vain. After a patient investigation for two years, with the attrition of conflicting opinions, all parties were forced to the conclusion that its spontaneous manifestation was the only rational mode of accounting for its appearance, and that contagion could have had nothing to do with its origin.

CASE 2.—The next case to which I shall call your attention, occurred at the same time with the foregoing. It presented itself on the height of land betwen the Chenango and Unadilla rivers, in the town of Norwich, and fell under the care of my friend Doctor Royal Ross, of New Berlin. The patient was a child that lived in a very secluded place, and, so far as the most scrutinizing investigation could determine, was entirely independent of a foreign source. The symptoms were severe, following each other in regular succession, and gave unmistakable evidence of the diagnostic character of small-pox. Contagion followed, and a number of individuals had the disease before sanitary regulations could be brought to bear to arrest its progress.

It is proper to remark, that quite a number of cases of varicella had shown themselves for some miles around; they appeared in a mild form, were not traceable to each other, nor did the variola and varicella mutually produce each other. It appeared as though they were concurrent, manifesting an endemic atmospheric influence.

CASE 3.—The next case to which I shall refer presented itself in the town of Pitcher, at the extreme western bounds of our county, and fell under the eye of Dr. David McWhorter. It occurred the same winter, and within three days of the two foregoing cases. The patient was an adult, and lived in a retired part of a rural country. It presented all the charac-

teristics of a spontaneous case of small-pox. Thorough investigation was had at the time to demonstrate its foreign origin, but in vain. It resulted in an entire conviction on the part of all, that it did not arise from contagion. The diagnostic manifestations were perfect, the symptoms ran the usual course, and when the secondary fever appeared it proved fatal. Quite a number of persons contracted the disease by direct exposure, and although no evidences of the minor exanthemata had *preceded* it, a number of cases of varicella *followed* it. They appeared in an epidemic form, and could in no instance be traced to exposure to the variola.

These three cases came to my knowledge at the time they existed, and were subsequently duly investigated in reference to a legal inquiry. The facts, so far as they involve their spontaneous character, were amply sustained by medical and other testimony, and living witnesses, both in and out of the profession, could now be obtained to substantiate them.

It may be thought that the advent of these three cases, so near each other, and at the same time, would indicate that they had a common contagious origin. But it should be borne in mind that they occurred some thirty miles from each other; that they appeared in mid-winter, when the snow was deep and drifted; that they all presented themselves in the most sequestered locations; while in our thoroughfares and villages the inhabitants were entirely exempt from the disease.

CASE 4.—The next and last case to which I shall allude occurred at Chenango Forks, seven miles from our village, the first week in January of the present year. The disease attacked a child about four years of age, without the slightest evidence of exposure. I saw it, in company with my friend and neighbor Dr. A. Willard, about the fourth day of the eruption, and although the premonitory symptoms, with the attendant fever, were mild, and the eruption in consequence rather imperfectly developed, yet, to the experienced eye, there was not the least difficulty in distinguishing its diagnostic character. One who had seen and been familiar with the small-pox, could not but see all its essential characteristics in the case before us. This was clearly and unequivocally

declared. But the attending physician and many of the relatives of the patient could not, or would not, believe it to be such. Their reason was, that the child had not been exposed to contagion. They were under the shadow of that delusion which I am endeavoring to disperse, and could not believe in opposition to popular opinion that the small-pox could spontaneously appear in the human family, and particularly that this loathsome disease should appear in a member of their own household. They were all ready to declare that if there was a possibility for it to have been *exposed*, or if it had occurred in a city, they could believe it to have been a mild case of small-pox; but as it had neither of these advantages, and had presented itself without legitimate parentage, they heeded not our admonition, stoutly denied its character, ridiculed our diagnostic opinions, and governed themselves accordingly. The child died about the 10th day of the eruption, and was buried with all the formalities of a country funeral, even to the exposure of the body to the gaze of a sympathizing populace.

A few days after, and before contagion had appeared, I announced in my place at the annual meeting of this Society the nature of the disease, and the evidence of its being of a spontaneous character. On my return, the seed that had been sown and scattered to the four winds of heaven, had taken root and exhibited signs of germination. It spread extensively. Some twenty-four cases arose from the first subject; some of them were mild, others assumed the most appalling forms; four proved fatal, including the first, and the balance are living evidences of the spontaneous appearance of small-pox, and bear the marks of the disease indelibly engraven on their foreheads.

In the excitement attendant on the spread of so malignant a disease as small-pox, with the consequent alarm that pervades community, experience has clearly demonstrated that many wild and extravagant notions will prevail in regard to its cause. But after a careful investigation of all the attendant circumstances, I have not the least doubt, as before announced, that it was a spontaneous case. After a patient investigation, which time has now permitted, all believe that, if there were

cases where the disease is contracted without exposure, this was clearly one of them. Indeed, it would require a much greater tax upon credulity to believe in contagion in this case, than that it manifested itself by a concurrence of physical causes confined to the child itself. Had this truth been clearly admitted by the attending physician and the public generally, much more confidence would have been awarded to those whose experience and critical observation had enabled them to speak *decidedly* in relation to its identity, uncontrolled by any mysterious circumstances that might involve the *manner* of its advent. If this cloud of prejudice could have been removed, stringent sanitary regulations would have been enforced, valuable life have been saved, and an untold amount of suffering have been averted from that ill-fated community.

It is not to be disguised that another reason for unbelief in this case arose from the mildness of the symptoms in many of the cases, together with what was regarded as imperfect development of the variolous eruption. Although this *apparent* mildness was not always attended by safety to the patient, yet it was seized upon as an evidence to dispute the variolous character of the disease. The public seemed to require every case to appear in its most virulent form, if it did not prove fatal. It was not prepared to admit an important truth in the progress of this disease; that from the same exposure, every shade of manifestation may proceed from the most trifling eruption, that but slightly incommodes the patient, to the full development of the variolus poison, that converts the most healthy form into that bloated and loathsome mass of corruption that the grave can hardly hide from the imagination.

In the investigation of this subject, for the last twenty years, I have come in possession of a great number of facts that clearly illustrate the truth of the foregoing hypothesis, but they depend on the testimony of medical gentlemen without the bounds of this Society; and lest I should weary your patience with the prolixity of this paper, I deem it proper to confine the cases to those that have fallen under my own observation, and are cognizant to many of our own members.

The attention I have been able to give this subject, with the

uncontrovertible facts that have fallen under my own observation, have clearly established to my mind the following positions:—

1*st.* That small-pox, as well as all other contagious diseases, does occasionally present itself among us without specific contagion.

2*d.* That the physical system is so constituted, that it is obedient to certain organic laws, and among these is the generation and development of every disease to which each particular animal is subject.

3*d.* That there are seasons when atmospheric causes render the system more obnoxious to the invasion of these diseases, either by spontaneous development, or increased susceptibility to contagious influences. This was particularly the case in 1831, when there was a wide-spread exanthematous tendency, and very many instances of spontaneous appearance.

4*th.* As the higher latitudes are more subject to small-pox than tropical regions, the coldest seasons of the year are the most favorable for the generation of this disease; and in every instance where we have known a well marked case of spontaneous appearance, it has occurred in the coldest weather, when the thermometer was nearly or quite to zero.

5*th.* That when small-pox appears without contagion it is usually severe, or at least it is apt to attack those who lack recuperative energy, or are illy qualified to develop the disease in perfection, and conduct it to a favorable issue; hence, independently of the treatment they receive, they are very liable to prove fatal.

6*th.* That when it thus appears, owing to the epidemic or endemic cause that produced it, the whole populace, including those that have been protected, are more liable to be affected by it, than when it has been received by contagion. Indeed, the exanthematic tendency renders the vaccine disease more severe than at other times.

7*th.* That there is a constant and progressive change manifest in the human family in relation to susceptibility to small-pox. This is apparent in the fact that the disease is more mild than it was some centuries since, and, independent of treatment, the mortality in a given number of cases is much

less than formerly. It is manifest by the appearance of varioloid after vaccination, which seldom or never appeared in the early experiments with this preventive; and there is no doubt but that it appears spontaneous more frequently than in the early recorded history of the disease.

8th. That vaccination is the only safe prophylactic, and, independent of any deterioration in the vaccine matter, the change above referred to renders a second vaccination more necessary than formerly.

9th and lastly. That small-pox is not always attended by the minor exanthemata, and when they do appear together, it is as apt to *precede* as to *succeed* them, as was manifest in three of the above-mentioned cases.

If the foregoing positions are admitted, it is important that the profession should understand them, and the community at large be made to heed their admonitions. As physicians, we should take a close and scrutinizing view of every eruptive disease, and be prepared with an unbiassed mind to see danger *clearly*, and give every symptom its due weight in our diagnosis, without being swayed by preconceived opinion, or because we cannot comprehend the origin of the disease. Some of the phenomena of diseased action are legibly presented to our view, and require our closest scrutiny; others are hid from our sight, and are legitimate subjects of our speculations. The voice of the former should never be stifled, but should receive our first attention, and control our subsequent action; the latter may be examined at our leisure, as their practical bearing is of but little moment.

The expressed views of physicians at such times is of the utmost importance. We stand as sentinels on the watch-towers of public health, and if we give a false alarm, or even hold out a false signal, the whole sanitary regulations of community are subverted, and disease and death, in their most loathsome form, are let loose upon mankind. Should we have, on such occasions, a remote doubt, we are bound, as honest men and responsible beings, to give community the benefit of that doubt; and if we ERR we should err on the safe side, as it is far better to flee danger when it does not exist, than to fall into it through our own blindness or want of circumspection.

If small-pox may and does spontaneously appear, community should be alive to its truth. It should be ***known***, that each individual may be enabled to perform his duty, in the execution of the sanitary laws which legislation has cast around the people for their protection. It should be ***known***, that all, as far as they can, may protect themselves from this loathsome and fatal scourge. It should be ***known***, that when it appears in this manner, some luckless individual may not be made a scape-goat to bear the sin of public ignorance on this subject, and be accused of corruptly *giving* the disease. In the first case above referred to, a young physician was boldly charged with intentionally spreading the disease for mercenary motives. Public opinion scouted the idea that it could ever be spontaneous, and asserted that the subject could not have been accidentally exposed. Many, very many, boldly declared that it must have been given him for some corrupt purpose, and WHO, it was asked, had any interest in its propagation but some physician? Who so likely to open Pandora's box and empty it to its lowest dregs as some young physician wanting business and wanting bread? This is by no means an isolated case of such a charge; many such have occurred in different sections of our country. The excitement and fear attendant on a case of small-pox are admirably fitted to lend wings to the scandal and detraction which may arise, both in and out of the profession, against any physician who cannot answer the question unhesitatingly—"Where did he get it?" Our interest and our duty call upon us to unravel the mystery with which this subject is shrouded, and, as far as is in our power, to arrive at the truth in this matter, and when it is found, engrave it as with a sunbeam on the public mind, not only for its advantage, but for our own.

[The following case bears so closely upon the views put forth in the foregoing paper, that we copy it entire from the 5th vol. (1849) of *The Medical Examiner*, p. 518. A careful examination of the *facts* set forth in these cases can hardly fail to carry conviction to the minds of the reflecting portion of our profession.—*Ed. N. Y. Jour. Med.*]

CASE 5.—***Small-Pox appearing in a family without any***

previous chance of contagion. By E. C. BANKS, M. D., of Laurenceville, Ill.

Mrs. G——, aged about 20 years, of robust constitution, pregnant 5 months, was attacked by a chill followed by fever of a moderate grade, remitting every morning, which continued for seven days. At the end of the seventh she commenced being chilly, which lasted for twenty-four hours; then her fever again arose and continued three days, when an eruption of a minute red papulæ appeared on her face, head and arms, and coalescing at their base. In a few hours more they could be seen making their appearance all over her body. In twenty-four hours they were well out, and fast running together. At this time they assumed a vesicular form. On the third day after the eruption first appeared, it was still more prominent, and the vesicles filled with coaguable lymph, of a dull whitish color; and surrounding each vesicle was a distinct areola. Fourth day. Eruption still increasing, and becoming more prominent and more yellowish than before. Fifth day. Integuments much swollen, fever increased considerably, with an immense flow of saliva; pustules more turgid, and of a spherical form, flattened on top; local inflammation and pain increased. Sixth day. Much the same condition as on the fifth, swelling rather greater, fever quite as high; pus could also be seen in each pustule on the face, head and arms. All the symptoms now seemed more aggravated. Seventh day. Condition much the same as on the sixth, fever rather less, thirst not so great. Eighth day. Pustules still more flattened, and pitted in the centre, swelling of the integuments abated. They were now at their full size, and were completely confluent. The eyes nearly closed from the swelling around them, and in the eyelids. The eruption was worst on her face. Ninth day. A few pustules on her face had broken, and thin incrustations formed. The tenth day still more had burst, and discharged a thin ichorous fluid, which formed thin, soft incrustations of a brown color. The twelfth day her face seemed one entire brown scab, with here and there a portion peeling off. Fourteenth day. Still desquamating on her face, head and arms, while on her body it was commencing to do so; though the eruption came out later on her body and legs,

it began to dry rather earlier than it did on her face and head. Fifteenth day. Desquamation in full blast. Great itching now present. Secondary fever now arose, and before she had scaled off, she sunk and died, not however without having aborted about the tenth day of the eruption. The attending physicians did not consider it a case of small-pox; but as others had taken it about this time, I was sent for, and found a near neighbor of this family laboring under variola. I went immediately to see the dead body, which I found well marked with the same disease. I at once sounded the alarm, by telling them it was small-pox.

The family in which the first case occurred lived completely in an out of the way place; no one ever visited them but their neighbors, and no small-pox had been within a hundred miles of that place, nor had any communication taken place between them and any strangers, either pedlers or others. No clothing had been purchased except a shawl at one of the stores in our village, dozens of which, out of the same pack, had been sold to other persons, and no ill consequences had followed. They are people that keep at home most completely, and as I stated above, no communication ever takes place between them and strangers. Hence the impossibility of its being brought there, the man of the house positively asserting that no intercourse has occurred, and that no garment, except the said shawl, has been purchased for six months. All those who had been vaccinated escaped altogether, or with varioloid in the mildest form. Several very severe cases occurred among those who never had been vaccinated.

A consulting physician who was sent for from a neighboring city, Vincennes, Ia., decided it to be genuine small-pox. It has spread greatly in consequence of the assurance by others than myself that it was not contagious. The eruption was confluent in a few, but distinct in the majority. In those who have had it in the confluent form, dangerous symptoms have arisen, and three have died who had it in that form, while four recovered. All the others got well who had it in the distinct form. I omitted to mention that the fœtus which this lady lost was completely covered with the eruption; it only lived three hours.

I am of the opinion that small-pox occasionally originates without the influence of contagion, and that this was one of the cases of that kind. I see no possibility of her having taken it from any clothing purchased, not even from the shawl; and if so, others certainly would have taken it in the same way, as the shawls were sold to different persons out of the same pack. The fact, also, that she was sick seven days before the particular symptoms of small-pox made their appearance, while in all the other cases who have taken it from her, and others who have taken it from them again, the eruption commenced making its appearance about the latter part of the third or beginning of the fourth day, militates against the idea of contagion.

[In connection with the above it may be stated, that two cases have recently occurred in the Eastern Penitentiary of Pennsylvania, in which the "separate system" is strictly enforced. In one case the convict had been incarcerated for two years, and in the other for six. In these instances it would be difficult to explain the occurrence of the disease by contagion. —*Editors Examiner.*]

ART. V.—*Cases from my Note-Book.* By M. L. KNAPP, M. D., late Professor of Materia Medica and President of the College of Physicians and Surgeons of the University of Iowa.

CASE 1.—*Amputation of the Womb.*—Mrs. Merwin consulted my early preceptor, Dr. Colbey Knapp, of Guilford, Chenango co., N. Y., many years since, concerning an unnatural tumor of the vagina, with leucorrhœa and hemorrhage. The tumor was of the size of a large pear, and protruded without the labia portions of the time, especially during menstruation, which was regular. She had been delivered about two years before by Dr. Nevins, who, it does not appear, was aware that inversion of the womb succeeded to the delivery. She did not rise from her confinement for three or four months, but at the time she consulted Dr. K. was able to walk about a little. An examination of the case satisfied the doctor that the tumor was the inverted womb. The menstrual secretion could be seen oozing from the entire surface of the tumor, like sweat from

the pores of the skin in summer. The woman was informed of the nature of the difficulty, and told that no means of relief could be extended to her otherwise than by amputating the womb, an operation of extreme hazard, and very rarely performed. She decided to submit to the operation, and take her chance of recovery.

Operation by Ligature.—The tumor being drawn down and retained by an assistant, the doctor passed a strong silken ligature, previously well waxed, around the neck of the tumor, above the os tincæ or upper end of the now inverted womb, easily felt through the encircling folds of the vagina, and drew it with all his might, and secured it with a firm knot. At the end of ten days the inflammation had so far subsided that the doctor ventured to draw down the tumor and examine it. By means of a silver probe hooked under the ligature, and the ends fastened to a stick, the tightening of the ligature was successfully managed, and the tumor came off on the fifteenth day after strangulation. The patient rapidly regained her health.

Remarks.—This case did not come under my own observation, it having occurred prior to the period of my entering the office of my revered friend and relative, in 1818. I have often heard him speak of the case, however, and have seen and conversed with the woman since. These brief notes of the case were made many years since under his own observation and approval, and with the view of making a record of the facts some day to his credit. The operation has been but rarely performed, and, being in this case perfectly successful, it should stand as a lasting monument to the doctor's sound judgment and practical skill as an obstetrician.

CASE 2.—*Injury of the Spine.*—A Mr. Walker, aged 27, of Kane Co., Ill., was injured by the fall of a tree in January, 1843. I saw him in the spring of 1846, and desired minutes of the case, which were furnished me by the attending physicians, Drs. Richards and Everts, of which the following is an abstract:—

The tree, it seems, crushed the man to the ground, falling across the back, and folding the lower extremities in a flexed position under him, and rendering him insensible for some

time. On return of consciousness, after hours of exertion, he finally pulled himself from under the tree, and dragged his body to the road-side, where he was discovered at evening, some eight hours after the accident, nearly insensible, hands slightly frosted, and no sensation or motion in the lower extremities.

On examination, the spine was found distorted, curved anteriorly and to the left, at about the union of the dorsal with the lumbar vertebræ, which distortion remains permanent. Several ribs of the right side were broken or dislocated. No fracture or dislocation of the vertebræ positively ascertained.

In the course of a year he was able to sit up. At the end of a month from the accident slight spasmodic action of the muscles of the lower extremities occurred. In four months, the spasms of the lower limbs became violent. The muscles remain to this time permanently susceptible of being thrown into the most violent agitation on exposure to the cold air, or a sudden touch, now three and a half years from the time of the injury. These spasms appear as aimless as the death-struggles of a decapitated chicken, and equally as frightful; yet the poor patient has not the slightest consciousness of the fact from sensation, but only from observation by sight! Many a clinique on the reflex action of the nervous system has this case afforded.

Within two years after the injury, the patient commenced discharging pus from the urinary bladder, and continued to pass large quantities for eighteen months, when it disappeared. Several small calculi were afterwards passed.

The bowels, for a year or so after the injury, only moved as they were acted on by cathartics. All control over the sphincters lost, but the patient still conscious when about to have an evacuation.

June, 1846, three years and a half from the time of the injury, the patient's health good. All sensation and volition in the right leg absent. In the left he can distinguish heat and cold, and can feel when pinched, and can move the foot on the ankle joint slightly.

CASE 3.—*Fracture of the Spine.* (With a wood-cut.)—

This case occurred in the practice of Dr. Richards, also, and was concurrent with the last. The doctor is in the habit of referring to it in his lectures, as illustrative of the nervous pathology of malarious fever. From the section of the spinal column furnished me, I have had a wood engraving executed, that represents very truthfully the dried specimen, and illustrates the nature of the injury. From notes and dates furnished by Dr. Hard, who was then practising with Dr. Richards, I am enabled to report the case substantially correct.

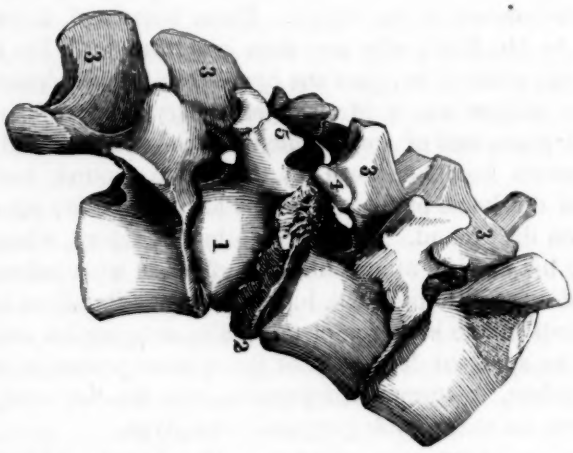
The subject was a Mr. Daniel Emery, of Fairfield, Ill., aged 21 years, and of stout athletic habit. In Oct., 1844, he was thrown from his horse on the frozen ground, and the knees of the horse pitched upon his back as he lay upon his breast on the ground. Five hours after the injury, when first seen by his medical attendants, his sufferings were indescribable, and referred to his back, hips, and legs. Paralysis of the lower half of the body complete, both as to sensation and motion. An apparent depression of the spinous process of one of the vertebræ, fracture and depression, was the diagnosis, and, of course, an unfavorable prognosis was given.

The treatment was palliative. The bowels only moved as they were acted on by laxatives and enemata; catheter required; sufferings excruciating in the back and hips; appetite gradually declined; emaciation followed. In December, malarious fever set in. This was arrested after full observation of the second paroxysm through its several stages, by the medical attendants, and the following remarkable facts noted, to wit: that the upper parts of the body went through the cold, the hot, and the sweating stages of the paroxysm of fever in regular order, whilst all the parts of the system below the injury were entirely undisturbed and unconscious of the tumult going on above! The fever was a tertian, and quinine was given in doses sufficient to prevent another paroxysm.

The patient gradually grew worse, however, until at about the end of five months death put a period to his sufferings.

Post-mortem examination.—This revealed a transverse fracture of the body of the tenth dorsal vertebra, without involving the lamellar processes. Dislocation of the articulating processes of the ninth and tenth vertebræ, with fracture and

reunion of one of these processes of the tenth; reunion of the fractured portions of the body of the vertebra with permanent distortion; almost total occlusion of the spinal canal; ramollissement of the cord below the injury, and a highly reddened and injected condition above.



Remarks.—Nothing of remarkable interest is seen in this case, simply as a case of injury of the spine, unless it be the fracture of a *body* of a *vertebra;* a proof that the bony structure will give way before the interosseous ligament. The reparation by osseous reunion was to be expected, though the general health declined.

The peculiar condition of the patient, however, under a paroxysm of fever is full of interest, and arrests the attention in a remarkable manner, filling the mind with a kind of awe. One half of the body of the man had a perfectly developed ague, and the other half had none! Who ever heard of or saw the like before? Who ever will look upon the like again? Does it establish the nervous pathology of fever? The distinctive

Explanation of the Plate.—1. Tenth dorsal vertebra. 2. Superior portion of tenth vertebra. Between 1 and 2 is seen the reunion by osseous matter of the fragments. 3 3 3 3. Spinous processes of the 8, 9, 10 and 11 vertebræ. 4. Right articulating process of the ninth vertebra, thrown from. 5. Right articulating process of tenth. Between the spinous processes of the ninth and tenth, nearly double the natural space appears, which was mistaken for depression.

symptoms that go to make up an intermittent fever were strongly marked, and observed their regular succession in all parts of the system above the injury where the cerebro-spinal influence was maintained; but the parts below were completely exempt from all febrile phenomena—neither cold, nor heat, nor pallor, nor rubor, nor sudor!

If this case does not prove the nervous pathology of fever, it proves at least that parts cut off from direct and healthy connection with the spinal axis are exempt from the phenomena of fever; and the inference is that these nervous phenomena are consequent on the primary impressions made on the cerebro-spinal system by the malarious poison circulating in the blood. The altered and vitiated secretions of the stomach, liver, &c., for which oceans of mercurial cathartics have been given in malarious fevers, aimed at the primary cause of the disease, are but secondary phenomena.

Reasoning from analogy, the malarious poison should prove itself to be a *Cerebro-Spinant*, and of the order *Convulsives*, (Percival,) and such no doubt it is. It may yet be isolated. The effect of various cerebro-spinants, inhaled or otherwise absorbed into the blood, is a disturbance of the nervous system, by the poison impinging upon certain portions of the cerebro-spinal axes, for which they respectively seem to have an elective affinity. Why should ergot impinge upon a particular portion of the medulla spinalis, and produce contractions of the womb? Why should strychnia exalt the reflex action, and why should the preparations of iron allay it? Convulsives are remedies or antidotes for paralysives, and paralysives are antidotes for convulsives. Hence quinine and opium are the antidotes of the malarial poison. They are not probably antidotal by operating on the cause of the disease, or the poison itself, neutralizing it as an alkali neutralizes an acid, as some have supposed; but more probably they operate as alteratives, either changing the qualities of the blood, or modifying action in the nervous textures by counter-irritation. Chloroform, hydrocyanic acid, &c., all appear to operate in this way. All powerful poisons, indeed; and one full dose, that seems to saturate the blood, is more effectually therapeutic than ten times the quantity in minute doses. The vis vitæ resists small

doses of any poison. A habit can be established of taking any poison. But a dose that commands silence at once, rules the house.

CASE 4.—*Bicephalous Fœtus.*—Mrs. Fassett, of Michigan, aged 27, was taken in labor with her first child, at the full period of gestation, in September, 1843, attended by Drs. Near and Hard, the latter giving me the notes of the case.

Eighteen hours after the commencement of labor the head of the fœtus had descended into the basin of the pelvis, the right parietal protuberance presenting in the axis of the inferior strait, and the occipital fontanelle pointing a little behind the left obturator foramen.

Pains regular, but the head made no advance. The vectis was tried, ergot was administered, but still the head made no advance for twelve hours, when the forceps was applied, and the head with difficulty extracted. It now became apparent that the fœtus was a monster with two heads. The uterine contractions being very strong, and these efforts aided by traction, the trunk and second head were soon expelled.

The fœtus was a male of ordinary size, and bore every appearance of having been alive at the commencement of labor. Each head was supported by a distinct neck and vertebral column, uniting at about the third dorsal vertebra.

Consent was not obtained at the time to make a dissection of the fœtus, so that no account of the internal arrangement of organs can be given.

The left head was larger than the right, and was first delivered, and its neck was slightly longer than the other. There were three shoulders. First, a regularly formed scapula, to which the left arm was attached, a clavicle extending from it to the sternum, and another clavicle extending towards the other head to a rudimental scapula between the necks. The right shoulder was the exact counterpart of the left, with its regularly formed external scapula, and clavicle leading to the sternum, and a second clavicle extending thence to the rudimental scapula between the necks. The heads were well formed, features natural, the left head slightly the larger, right neck diverged at a somewhat greater angle from the primitive

vertebral column, arms well mated, trunk and lower extremities well developed in size, but both feet turned inwards, making the kind of deformity known as Talipes Varus.

In the delivery of this monster, the second head was reflected back upon the thorax, the occiput applied to the dorsum, in which position the thorax and head were forced through the pelvis, the chin, face, and lastly the forehead, passing under the arch of the pubis. There was no laceration of the parts of the mother, and no untoward symptoms supervened in the puerperal state. The specimen is in the possession of Dr. Near.

Cases of Infantile Asphyxia.—CASE 1.—Mrs. Ohm, of Chicago, was delivered of her first child in May, 1845, after a protracted labor of three days, every thing natural. The infant was in a state of asphyxia, and my efforts were directed to resuscitate it. No pulsation being present in the cord, it was divided, and the infant hurriedly bathed in warm water, and then enveloped in warm flannels and laid on a nurse's lap near a window, and artificial respiration instituted in the most vigorous and unremitting manner. An ear applied to the thorax of the infant soon detected a feeble pulsation of the heart, and this became more and more audible, the more skilful the efforts were at artificial respiration. A silk handkerchief being placed over the face of the infant, and the head let fall a little over the nurse's knee to render the air passages straight, I inhaled fresh air from the open window by deep inspirations, and immediately therewith inflated the infant's lungs by applying my mouth over the infant's, and alternately expelled it by compression of the thorax.

In this manner I persisted for *more than one hour and a half*, keeping one assistant constantly heating and applying and changing the flannels, until at last I had the happiness of perceiving a convulsive effort at respiration by the infant. This was quickly followed by another, and another, until respiration was fully and fairly established; and audible efforts at crying soon followed. The child, however, seemed excessively feeble, and rather moaned than cried. It was laid in the bosom of its mother, simply wrapped in a soft flannel blanket, and left

for the night. This was about ten o'clock in the evening. On my morning visit I found that the little infant, thus forced into life, had just died. It lived about ten hours.

CASE 2.—Mrs. Clancy summoned me to attend her in confinement in August following the occurrence of the above case. I found the waters had just broke as I entered the patient's room, and the case a shoulder presentation, the right arm in the vagina, and immediately proceeded to turn the child. The head was retarded in its delivery, and the infant born in a state of asphyxia, in spite of my best directed efforts. This being the case, I immediately instituted the same course of efforts to recover the infant from its suspended animation that had been successful in the foregoing case, and, after persisting *two hours and a quarter*, saw my efforts crowned with success. This infant lived about twenty-four hours, and then died.

Remarks.—These cases are deemed worthy of being reported for three reasons. 1. The time during which the efforts were continued is believed to be longer than any cases of the kind on record, where restoration to life was finally established. Forty-five minutes, or, at most, an hour, is the longest time, if I remember correctly, that any author advises the continuance of efforts to resuscitate. 2. The guide should be the heart's action, ascertained by auscultation. If there be any motion of the heart as a hope to build on, and this is increased by artificial respiration, success will ultimately crown well directed efforts, though the time may be several hours. 3. Death in both of the above cases is believed to have resulted from rupture of the air-cells of the lungs, from too forcible expansion of their tender textures. A bloody froth seemed to choke up the air passages of both. The efforts should be quick and gentle, not forcible expansion—an important practical principle.

Cases of Turning in Delivery.—Speaking of turning in delivery, a few cases may serve "to point a moral."

CASE 1.—I was requested a few years since by my friend, Dr. ——, to visit a patient with him at the Dutch Settlement,

a mile and a half north of Chicago. This was at 12 o'clock meridian. It was a case of twins. One child had been delivered, all right; the other had taken a very awkward way to get into the world. Two hands and a foot were in the vagina, and the problem was to find the other foot. The doctor and his partner had tried in vain from morning till noon, some five or six hours. The pains were of great force. The back of the child was the presenting part—after passing the hands and left foot—and the head of the child lay to the right side of the mother. Passing my left hand up behind the child, the woman on her back with the hips brought forward quite to the edge of the bed, I directed the assistants to roll the patient carefully on the left side, still keeping my hand in the uterus, which at once enabled me to seize the right foot. The delivery was accomplished in less than fifteen minutes.

CASE 2.—I was summoned, not long after the previous case, to the bed-side of a large heavy woman, in labor, in Chicago, and met two of my professional brethren in attendance. The case was a belly presentation, the cord prolapsed, the child dead, and the labor of 15 hours continuance. The first physician in attendance had so far succeeded in his efforts at version as to bring down one foot; but the pains were so very powerful that he could not endure his hand in the uterus; and his counsel, Professor ——, had been equally unsuccessful. They therefore decided to try to deliver by traction upon the one foot. The consequence was the pulling off of the leg at the knee-joint. In this condition of affairs I was called, and, desiring the patient to be calm, I ordered her lifted forward so that the nates presented well over the edge of the bed, patient on the back, and, kneeling in front, I introduced the left hand, with me always the most reliable in obstetrical manipulations, though I am not left-handed, and finally succeeded in passing the hand by the stump of the femur and impacted hips of the child, and, desiring the assistants to roll the patient, first on the left side, and, not succeeding, then on the right, the foot came right into the hand as a thing of course, and delivery was effected in about twenty minutes.

Remarks.—I could go on and detail many like cases; and

so could other practitioners, perhaps, whose judgment and tact have enabled them to bring the most urgent cases to a happy and speedy close, that had resisted the united efforts of other professional gentlemen. And I hold that these cases, affording even but *one practical hint*, and this hint not to be met with in elementary works, is worthy of presentation to young practitioners. This hint is the turning of the patient to one side or the other whilst the hand is retained in the uterus. It may have been practised by others, but I never remember to have seen the hint in any work on midwifery, or to have heard it taught in the lecture room. I think the whole circle of the cavity of the womb can be thus swept by the hand, and the palm made to glide over every portion of the fœtus, by thus turning the woman by degrees, from her back position, either way.

Dr. Lee (*see his published lectures*) advises the right hand always used, and the patient on the left side. Others direct which hand according to the position of the child. I have tried these rules, but would not relinquish the above mode for any and all of them.

Cases of "Nursing Sore Mouth."—CASE 1.—While residing at Springfield, Ill., I was called in the month of June, 1835, to see Mrs. Colborn, who had been ill nearly all winter, and who was at the time nursing a child four months old. On visiting her, I found that she was wholly confined to her bed, and was suffering from the prostration attendant upon a protracted and severe sore mouth. Her physician, a gentleman of good medical attainments, had not succeeded in rendering her relief. The family and friends had accused him, without cause, of giving mercury, which had produced the effects under which she was laboring. On examining the patient's mouth, I found the gums soft, spongy, and bleeding, the teeth loose, and a horrid fetor issuing from the affected parts. From the habits and condition of the patient, I was led to believe that she was suffering from the effects of land scurvy, and I accordingly put her upon such vegetables as could be obtained. Her principal diet for three weeks was stewed gooseberries and milk punch, at which time she had so far recovered as to be able to attend to her ordinary voca-

tions about the house. Her cure was permanent, and she took not a particle of medicine.

Remarks.—Many somewhat similar cases came under my notice from the occurrence of the foregoing case to the year 1843, when I removed to Chicago. The country was newly settled, and succulent vegetables, such as cabbage and turnips, and sometimes even potatoes, were not put up for winter, because the settlers had not cellars, frequently, to keep them from frost. Neither was orcharding attended to, and cider or vinegar was seldom met with. Pork and hominy constituted the principal diet. In this condition of things a moment's reflection satisfied me that scurvy lay at the foundation of those cases which had their origin in the winter season, and they were accordingly treated, successfully, with such indications in view.

The following spring after my removal to Chicago (1844), "Nursing Sore Mouth," as it was called, became almost epidemic. Two uncommonly cold, wet, and backward springs had followed each other in succession, and succulent vegetables and fruits were scarce beyond all former experience. Cases of scorbutic diathesis were every day presented to my notice in my own practice, and whole families were affected often; some would have sore mouth, others griping pains, and others, again, great debility, and some only complained of lethargy or inertia.

CASE 2.—Mrs. G——, who fell into my hands after a three months' attendance by another, and an old practitioner of this city, died the next day after he was dismissed, and I was called. I had ordered her nothing but milk punch, and believe she had not even had any of that prepared, when symptoms of premature labor came on; I was summoned to the bed-side; she was delivered, and died in about an hour from the shock or exertion. She had a very badly ulcerated tongue, and petechiæ all over the legs.

CASE 3.—Mrs. Jordan, the same spring, died in the same manner as case second, after delivery at full time, and without any accident or flooding. I was with her early, and she had a quick and easy labor, but sank away and died, as it were,

from the shock of the exertion. Just as a sailor affected with scurvy on board ship, will walk the deck, and then lie down in his hammock and die in a few minutes. I had not seen her till summoned to attend her in labor; still the cause of her death was plain to me.

CASE 4.—Mrs. W——. This lady had been laboring for months under the inconvenience of "nursing sore mouth," which had resisted all manner of treatment instituted by her medical attendants. She had been blistered for the pains in her abdomen, and all her cravings for pickles and acid vegetables of all kinds had been opposed. Seeing her accidentally in company with one of her medical attendants, it was suggested that the disease depended mainly upon scurvy, and lemon-juice was recommended. She was accordingly put upon the use of it, and, to the great surprise of all, she rapidly and permanently recovered.

Remarks.—These cases are reported because of their practical bearing. Marvellous accounts of this nondescript disease, called "nursing sore mouth," appear from time to time in the journals; and why some one has not set its nature and pathology to rights, who is in the habit of contributing to, and fond of appearing in the journals, I am at a loss to understand.

About two years since, as well as I remember, a contribution appeared in the St. Louis Medical and Surgical Journal, that was very valuable, on the prevalence of the scorbutic diathesis in the west, and its controlling power for evil over all diseases that might happen to arise, comparing its withering and predisposing influence to that of malaria, which is even so; but the writer did not portray its most frequent manifestation in the form of the "*nursing sore mouth.*" This disease is, however, now going out of fashion as horticulture advances.

Two practical ideas may be derived from these cases. 1. That patients in all new countries should be allowed the free use of lemonade, whatever the disease. 2. That pregnant and puerperal females should not be restricted in their diet, the cause often of the setting in of the scorbutic diathesis, or "nursing sore mouth," but should be allowed succulent vegetables and fresh animal food, pickles, lemons, oranges, &c.

HOSPITAL REPORTS AND TRANSLATIONS.

ART. VI.—*Report of Medical and Surgical Cases occurring in Bellevue Hospital.* By STEPHEN SMITH, M. D., Assistant Surgeon.

Cases of Morbus Coxarius, in which the Acetabulum was perforated, and collections of matter in the pelvic and abdominal cavities communicated with that in the joint.

CASE. 1.—Margaret M'Cormick, seventeen years of age, native of New-York City, was admitted January 26th, 1850. Patient is of a delicate constitution, sandy hair, light complexion, in manners child-like, system not more developed than well-fed children of twelve years of age. She says that for the last two years she has experienced at times painful sensations in the right knee; that about fourteen months since the pain became very severe, located in the external part of the joint, and very much aggravated in the afternoon and evening. During the last year various counter-irritants have been applied to the hip with temporary relief; the last was a seton, upon the healing of which an abscess pointed in the groin, and has continued discharging freely ever since. At her admission the thigh was flexed and extremely painful on motion, lying obliquely across the other thigh; the muscles atrophied; the countenance blanched and sunken; and hectic was already a prominent symptom.

The treatment consisted of tonics, and for several months, under their use and good diet, the system maintained an equal contest with the disease; but, the digestive organs at length becoming irritable, the drain upon the system of so great a suppuration could no longer be counteracted, and she began rapidly to emaciate. The denuded head of the femur could now be detected grating harshly in the equally exposed cavity of the acetabulum, numerous sinuses formed communicating with the joint, and finally extensive sloughs from the

nates and sacrum added a new complication, under which she sank and died December 12th, 1850.

Autopsy, twelve hours after death.—Body extremely emaciated; parts about the right hip in a sloughy condition. On exposing the cavity of the joint, the *head* of the *femur* was found denuded of its cartilage, and irregular from the removal of portions of the articular surface of the bone; the *ligamentum teres* was destroyed; and the *acetabulum*, enlarged and deepened by ulcerations, discovered in its centre three perforations leading into the pelvis. An abundance of purulent matter was diffused through the pelvis beneath the peritoneum, having a communication with that in the joint through the acetabulum, and externally through the sloughs at the lower part of the sacrum. The pelvic bones were softened, offering but little resistance to the knife. No further examination was made.

CASE 2.—Catharine Hearne, twenty-two years of age, native of Ireland, was admitted September 1st, 1846, suffering pain in the right knee. She said that she had experienced this pain occasionally for two or three years, without any known cause, and leeches had been applied for its relief to the affected knee. She has strong hereditary predispositions to phthisis, and has latterly lived very poorly, being confined to a damp room.

During the first few months of her residence in the hospital the nature of her disease remained obscure, the affection of the hip-joint manifesting itself only through the pains of the knee, and hence such remedies as were used tended only to relieve what was considered a disease of this joint. The complaint soon began to define itself as true hip-disease, and her treatment was directed accordingly. Counter-irritation in the form of issues, setons, &c., was constantly kept up in the neighborhood of the joint for nearly three years; and, although during this time several abscesses formed, leaving sinuses which discharged matter freely, her general health continued remarkably good, and bony anchylosis seemed to be taking place. The following note of her case made at the end of this period, as copied from the records, indicates her condition and the progress of the disease.

"*Feb. 6th*, 1850.—Patient appears to be improving, limbs of same length, right much smaller than the left, disease in the third stage, anchylosis seems progressing, menstruation regular in its periodical recurrence, but discharge scanty. Treatment—rest, counter-irritation by blisters, good diet: internally, iodide of iron."

No considerable change took place in her condition during the twelve months following the above date. But about six months since her general health began to fail, the suppuration of the diseased joint became more profuse, grating of the denuded head of the femur in the cavity of the acetabulum soon became apparent on motion of the limbs, and she at length sunk and died July 2d, having reached the extreme of emaciation.

Autopsy, twenty hours after death.—The parts about the affected hip were in a more or less sloughy condition. The head of the femur deprived of its articular cartilage, but partially occupied its socket, widened and deepened by ulcerations; at the upper part of the cavity of the acetabulum was a foramen three lines in diameter, leading into the iliac fossa, and forming a communication between a considerable collection of pus in this fossa, beneath the iliac fascia, and the cavity of the joint. This collection of matter distended the peritoneum in the iliac region so as to form a tumor apparent on removing the viscera of the abdomen. The bones of the pelvis were of their natural hardness. Cavities were found in the apex of both *lungs*, and the upper lobes of the *right* were thickly studded with tubercles.

Remarks.—These cases illustrate very fairly the difficulty often experienced in diagnosing hip-disease in its early stage. In each, the symptoms all pointed to the knee as the true seat of disease, for more than a year, while the hip-joint gave no other evidence of the morbid process going on within it. This sympathetic pain in the knee is thought, by Sir C. Bell, to depend upon the obturator nerve, which "passes through the thyroid foramen down to the hip-joint, and, after supplying the muscles, is distributed upon the inner part of the knee. The nerve, in its course, is thus involved in the inflammation which affects the hip-joint, and the pain is referred to its extreme cutaneous branches, at a part distant from the seat of the disease." Coulson, taking advantage of the circumstance that the pain is sometimes felt along the outer part of the thigh, as in the first case above related, while the obturator nerve is distributed only to the muscles on its inner aspect, rejects Bell's explanation and thus substitutes his own: "It has struck me that, from the intimate connection of the long head of the rectus femoris with the outer edge of the acetabulum, and with the capsular ligament, the fascia of this muscle may take on the inflammatory action, and the pain in this way be conveyed down the limb to the thigh." But a better explanation is found in the remote sympathy of Hunter, in which "there appears no visible connection of parts that can account for such effects. In these

cases there is commonly a sensation in the sympathizer which appears to be delusive, and produces a wrong reference of the mind to the seat of disease." For this pain has no fixed situation, but is located variously in the thigh, knee, or even in the foot, or it may change almost daily from one part of the limb to another, as in a case now under observation.

In reference to the diagnostic value of this sympathetic pain, Ford observed that it "was always synchronous with the elongated limb; it commenced with it, it continued as long as the diseased limb was longer than the sound one, and ceased when the thigh began to resume its proper length, or to become shorter; and he had never observed it in the latter stages of the disease, when the thigh affected was shorter than the sound one." (*Obs. on Dis. of Hip-Joint.*) Chelius is of the same opinion; but, in two cases now under treatment in this hospital, both being in the third or suppurative stage, this pain of the knee is a distressing symptom.

An interesting particular in the history of the second case was, the occurrence of partial anchylosis and its subsequent destruction; cases of a similar character were recorded by Mr. Ford. Perforation of the acetabulum and the formation of purulent collections in the pelvic or abdominal cavities, mark the extreme and fatal termination of this disease. This is, comparatively, a rare termination; anchylosis or an exhausting external suppuration being much the most common. It will be observed, that in these two cases, the disease was seated in the *right* hip-joint. Although authors speak of the *left* as being more frequently affected, because "it is feebler than the right," a comparison of sixty-six well authenticated cases gives a very different result. Of this number, thirty-two were on the right, eight on the left, and one on both sides; in the remaining twenty-five no note was made of this fact; this gives about eighty per cent, or four-fifths of the cases as occurring in the right hip-joint.

CASE 3.—*Pulpy Degeneration of the Synovial Membrane of both Knee Joints—Phlebitis following the application of a blister to the Joint—Death.*—Mary Berry, twenty-two years of age, native of Scotland, admitted Dec. 11, 1850. No pre-hereditary disposition traceable; habits temperate; health has always been good, with the exception of occasional attacks of rheumatic pains in the neighborhood of the large joints. These have never been so severe as to prevent her from attending to her occupation.

About three months since, she had an attack of pain in the tibiæ,

which continued two weeks, and was always worse at night. The knee-joints soon after began to swell, the swelling increasing gradually, but never preventing locomotion, and not causing severe pain until within the last ten days. The connection of these rheumatic pains with syphilis is not traceable. Her general condition is good; both knee-joints are much enlarged, and give evidence of being filled with fluid.

Treatment.—Dec. 16th. Directed cups to be applied to both joints. 17th, ordered a blister applied to right knee, and Tinct. Iodine to left. 19th. Complains of severe pain in the head; pulse hard and frequent; pain in right knee, extending up the thigh; tenderness on pressure in this region; treatment as for phlebitis. 22d. Pain in right knee unabated; respiration frequent and irregular; gradually became more and more listless and inattentive to objects around her, and died on the 23d.

Autopsy, twenty-six hours after death.—Body fairly nourished. *Right knee* nearly twice its natural size, its circumference being fifteen and three-fourths inches; *left* twelve inches. From the right knee to the saphenous opening, the *veins* are distinctly traceable. Upon laying open the right knee-joint, a sero-sanguinolent fluid escaped, mixed with a small quantity of pus, the whole amounting to six ounces. In the cul-de-sac of the synovial membrane, underneath the tendon of the quadriceps extensor, was an irregular nodulated mass, of the size of an orange, supposed to be the synovial membrane, which had undergone degeneration. This membrane, throughout the whole cavity of the joint, is abnormal, having an appearance as if it had undergone degeneration in different degrees. To the left of the patella was some of the same tissue, tolerably thick, and covered with pus. The cartilages of the joint had lost their natural polish; the surface having a dirty white color. The left joint contained three ounces of viscid fluid, and the same changes had taken place as in the right, except that the degeneration had proceeded to less extent.

Upon dissection, the veins of the right thigh were found variously affected by inflammation, the *internal saphenous* being hard and like a cord, from the fibrinous plug which filled its cavity to its junction with the femoral. *Brain*, slight sub-arachnoid effusion, otherwise healthy. Other organs healthy.

CASE 4.—*Acute Synovitis of the Knee Joint—Evacuation of the fluid of the joint by incision—Rapid convalescence.*—Pierce Shea, twenty-six years of age, native of Ireland, was admitted Dec. 10th,

1850. Two years ago, while attempting to hold a restive horse, he was thrown to the ground, striking his right knee against a curb-stone, and fracturing the patella transversely. He was under treatment in the Penn. Hospital for this accident ten weeks, at the end of which time he was discharged, the fragments being united by a ligament half an inch in length. Since that time he has been very liable to falls, it being impossible for him to stand erect unless the limb was kept straight; the fragments of the patella are now two and a half inches separated. Came to the hospital for treatment of an injury to the same leg just below the knee, occasioned by falling upon the floor; wound four inches in length. Simple dressings were applied to the wound, and patient directed to keep his bed. About a fortnight after admission, the following notes of his case were made:—

Dec. 25th. Was seized with severe pain in the knee last night; had a chill followed by fever; pulse 96, full and hard. *26th.* Pain in knee increased; obtains no sleep; tenderness in the femoral region, where some of the glands are swollen; pulse 100, hard and incompressible; treatment actively antiphlogistic. *27th.* Knee considerably swollen and fluctuating. Dr. C. D. Smith, in attendance, opened it by making a transverse incision an inch in length two inches above, and on the inner aspect of the joint. A sero-sanguinolent fluid escaped in considerable abundance, containing clots of a fibrinous character—fluid synovial in its nature. *28th.* Continues to suffer severe pain in the knee; sleeps but little; discharge free, and of same character as at first. *31st.* Knee has again become tense and fluctuating; Dr. S. opened the tumor a second time by making two incisions on opposite sides of the joint, about an inch posterior to the lateral borders of the patella, in a vertical direction; probe passed freely through from one incision to the other; a large quantity of serous fluid escaped occasionally, streaked with a white discharge; ordered poultices to be applied to knee. *Jan. 1st.* Passed a more comfortable night; has less pain in knee; serous fluid escapes freely from incisions; pulse 112, quick. *2d.* Much better; slight pain in knee; pulse 100; tongue clean. *6th.* Pain in knee subsided; discharge continues, but in diminished quantity; general symptoms improving. *9th.* Discharge slight; joint is of its former size; no pain on motion. *20th.* Convalescent; left the hospital in an improved condition, and has since followed an active occupation.

CASE 5.—*Acute Synovitis of the Knee Joint—Spontaneous evacu-*

ation of the contents of the joint externally—Pneumonia—Death.—John McGinnis, aged 40, native of Ireland, admitted Jan. 14th, 1851. Ten days since this patient fell while walking in the street, striking his right knee violently against the frozen ground; suffered considerable pain in the joint at the time, but continued to walk around for two or three days, when the pain became so severe as to oblige him to keep his bed. Upon admission, one week after the accident, the knee was hot and painful, and distended with fluid, and his general symptoms those of febrile excitement, dependent upon a local inflammation. The affected limb was placed upon the double inclined plane-splint to secure the advantage of position and perfect rest, and leeches were applied to the joint.

Jan. 20th. Pain in knee increased; tongue dry and brown; condition typhoid. *25th* Swelling and pain of the joint unrelieved; general condition still less favorable; has chills, followed by fever and night sweats. *30th.* Severe symptoms unrelieved. *Feb. 7th.* A blister has been applied upon the inner aspect of the knee, at which point the contents of the joint seem to be pointing. Upon examination of the chest, the base of the right lung is found to be in the first stage of pneumonia. Ordered wet cups to be applied to this region of the chest. *12th.* Upon getting out of bed and attempting to walk, the tumor burst at the point indicated above, and discharged a large quantity of sero-purulent matter, with subsidence of the swelling and pain.

For several days the discharge from the knee continued free, the severe symptoms gradually abated, while the affection of the lungs progressed. This latter, however, partially yielded to treatment, but so enfeebled had the patient become, that bed-sores formed upon his back, and abscesses in other parts of his body, and he died Feb. 26th, exhausted by this excessive tax upon a hitherto good constitution.

Post-mortem examination ten hours after death.—Lower lobe of the right lung was found in the condition of resolving pneumonia; other viscera of chest and abdomen healthy. Upon opening the affected joint, pus was found in the cavity; the cartilage covering the head of the tibia was ulcerated in places exposing the bone beneath; the synovial membrane where not destroyed was thickened; and the tissues around the joint were of a dark color, and for a short distance above and below the opening infiltrated with pus.

CASE 6.—*Cancer of the Ovaries.*—Ann Looby, æt. 23, single,

native of Ireland, admitted March 14th, 1851. She was of a healthy parentage, had enjoyed invariably good health. Catamenia established at 16, and continued regular until nine months since. At this time she was seized with vomiting in the morning, continued unwell during the day, and on the following morning the menses made their appearance, with relief to her sickness. Two weeks subsequently she accidentally discovered a tumor in the right iliac region of the size of a hickory nut. This gradually increased, attended with lancinating pains, which often prevented sleep, and caused her to scream. Catamenia came on again at the usual period, but in less quantity, and finally ceased about three months since. Two months ago she first noticed a second tumor, which was in the left iliac region. At first the pain was severe, but it gradually subsided, while that on the right side continued to increase.

On admission she was pale, quite emaciated, no appetite, bowels regular. On examining the abdomen the tumors were easily defined. That upon the right side extended transversely from a little to the left of the linea alba to the upper border of the ilium, and vertically from the pubis to half an inch above the umbilicus; that upon the left side was much smaller, and apparently divided into two parts. The only feature in the subsequent history of this case worthy of record was the rapid and extreme emaciation of the patient, without any marked increase in the size of the tumors: she had occasional attacks of diarrhœa, which were however easily controlled, and she died April 8th.

Autopsy, ten hours after death.—Cadaver, extreme emaciation. Tumors easily circumscribed in abdomen, and, on pressure over that on the right side, a singular creaking sensation was felt. On laying open the abdomen, several large tumors presented themselves, occupying the pelvic and lower portion of abdominal cavities. Strong adhesions attached the ascending colon and small intestines to the posterior and superior surfaces of the tumor of the right side: its boundaries were nearly the same as those given upon an external examination; its surface was irregular, and at the point where the creaking sensation was felt was a small growth, having no other connections with the main tumor than adhesions which were easily broken up. The tumor upon the left side was much smaller, but of the same lobulated appearance, and had also contracted adhesions to surrounding parts. These tumors were traceable directly to the ovaries, which they almost entirely involved upon both sides. When incised, they presented in some parts a firm, almost fibrous structure,

and in others the consistence of brain tissue. The uterus was anteverted by the pressure of the tumors posteriorly, but was otherwise normal. Other organs healthy.

CASE 7.—*Erysipelatous Laryngitis.*—Mary Horn, aged 30, native of Ireland, was admitted May 9th to the Lying-in Wards, in her third pregnancy. She was delivered of a still-born infant June 7th, and convalesced from her confinement with no untoward symptoms.

June 14th. She complained of pain and soreness in her throat; and, on examination, the tonsils were found slightly enlarged, and the posterior part of the mouth diffusely reddened. A solution of nitrate of silver, grs. xxx. to water ℥, was ordered as a local application to the inflamed fauces, and rubefacients used externally. During the night she obtained the solution, and, ignorant of its purpose or effect. gargled it several times in her mouth, which was found on the following morning covered with a white surface. This was however soon detached, leaving the mucus membrane of its natural color. 16th. Increased difficulty in swallowing. dyspnea, a loud hoarse cough, high fever and swelling beneath the chin. 17th. Dyspnea much increased, unable to lie down from fear of suffocation, aphonia, inspirations croupal, epiglottis feels tumid when examined with the finger. 18th. Erysipelas has made its appearance about the throat, and extended down upon the chest, neck much swollen in consequence, dyspnea diminished, tongue red and swollen.

During the three following days she continued to suffer paroxysms of severe dyspnea, the tongue swelled largely, the erysipelas faded from her breast, but assumed a phlegmonous character about the face, and she died apparently from the exhaustion consequent upon the long continued deficiency in her respiration.

Autopsy, twelve hours after death.—Papillæ of tongue prominent; epiglottis tumid, its borders red; the mucous membrane on its posterior surface normal; that on its anterior loose and covering some serous fluid contained in the sacs formed by its reflections. The edges of the superior orifice of the larynx were slightly injected and marked by irregular white patches, which, when picked off, left ragged, ulcerated surfaces beneath. Upon farther dissection, pus was found infiltrating the cellular tissue around the larynx, distending the space between the thyroid and cricoid cartilages and pressing upon the rima glottidis, so as to obliterate the sacculis laryngis of both sides. The interior of the larynx trachea and esophagus appeared entirely healthy.

Another case, similar to the one above related, but having a more favorable termination, occurred soon after. The subject was a male, aged thirty-five, who was admitted with tonsilitis. His voice was at this time husky; he had fever, dyspnea, dysphagia, and the swelling about the jaws was such as to prevent an examination of the fauces. Leeches were applied to the throat, and a calomel cathartic administered. On the following day, erysipelas made its appearance about the lips and nose, and quickly spread over the entire face and head; the lips and face generally swelled greatly, but the affection of the throat gradually declined. Nitrate of silver, full strength, was applied to the inflamed skin, and other remedies made use of to suit the case; he convalesced in a few days.

CASE 8.—*Strangulated Oblique Inguinal Hernia, in which the contents of the sac were the Omentum and Transverse Colon—Operation—Peritonitis—Death.*—John Grady, twenty-two years of age, native of Ireland, was admitted June 28th, with strangulated inguinal hernia. Four years ago the hernial tumor first made its appearance in the right groin, after severe exertion, but was easily reduced; since that he has suffered occasionally from its protrusion, and twice applied to a surgeon for relief. About noon of the day of his admission, upon making more than ordinary efforts at lifting, the hernia came down larger than usual, and soon after he began to suffer pain and subsequently to vomit. Efforts at reduction of the tumor by taxis proving ineffectual, he was brought to the hospital for operation. The tumor was, at this time, the size of the two fists, tense and painful, situated in the right groin, between the external ring and the upper margin of the bag of the scrotum, and protruding so directly forward as to make it doubtful whether it was a case of direct or indirect inguinal hernia.

The operation was performed at midnight, by Dr. Parker, assisted by Dr. Watts; patient not under the influence of an anæsthetic. The contents of the sac, omentum, and large intestine, were deeply congested, the latter having one or two dark colored spots upon its surface; not, however, gangrenous. That portion of the gut which last descended was easily returned, but considerable difficulty was experienced in reducing the old contents of the sac, although the stricture was freely divided, and no adhesions could be detected at any point. The omentum was drawn down, its vessels ligated and the remainder torn; and, after renewed manipulations, the mass subsided within the abdomen. Patient bore the operation well, and

after the administration of an anodyne, passed a comfortable night. On following day, remained comfortable; no pain or tenderness; bowels not moved; passed water freely after the introduction of the catheter; pulse ninety-two. In the evening, complained of sharp pains in the epigastrium, with considerable tenderness; pulse not excited, but having less force. Ordered a dozen leeches to abdomen, followed by warm fomentations; after which the pain subsided and he had a good night.

On second day, had no pain or tenderness of abdomen; slight tympanitis; pulse one hundred and eight, feeble; appearance cadaveric. Gave an enema of infusion of catnep, which brought away some gas and hardened feces. During the day, he failed rapidly; having, however, no return of pain or tenderness; vomiting came on towards evening, and he died at midnight, forty-eight hours after the operation.

Autopsy, ten hours after death.—Lips of external wound adherent; tympanitis considerable; four ounces of serous fluid in abdomen; intestines in upper part of abdomen injected in patches, scattered flakes of lymph, viscera otherwise healthy; in pelvis, and especially in the region of the internal ring, marks of intense inflammation and abundant effusion of lymph; transverse colon forming a loop which descended to the internal ring on the right side, displacing the stomach in that direction; no blood discoverable; omentum gathered into a hard mass at most depending portion of the colon. Upon laying open the intestines the mucous membrane appeared covered with false membrane to the extent of four inches; beyond this it was œdematous, having a gangrenous appearance, but no odor. Other organs healthy.

ART. VII.—*Digitaline.—Reports* of MM. RAYER, SOUBEIRAN *and* BOUILLAUD. *Translated for the New-York Journal of Medicine* by H. N. BENNETT, M. D., of Bethel, Ct.

[THE following Reports (of which this translation is an abridgment), presented to the National Academy of Medicine by the distinguished gentlemen whose names are at the head of this article, have reference to the "Memoirs upon Digitaline by MM. Homolle and Quevenne," and were made by them in the capacity of a commission deputed by the Academy for this special purpose. The first Report was made at the session of the 8th January, 1850, the second the 4th February of the present year.]

FIRST REPORT.

Chemical and Pharmaceutical Part.

THE authors of the Reports. after presenting to the Academy some extracts from the work of MM. Homolle and Quevenne, showing the motives which induced these gentlemen to prosecute their labor, proceed to their own task, which is set forth in the following paragraph. Now that we have laid before the Academy the reasons for which MM. Homolle and Quevenne have devoted themselves to new investigations upon one of those plants whose physiological and therapeutic power excites in the highest degree the curiosity, not to say the admiration of all true observers, we pass to the analysis of the memoir upon which we have been desired to report. This work is naturally divided into two parts; the one relative only to Digitaline, the other exclusively devoted to all the other principles which are found in digitalis. According to the declaration of the authors, the first part, that which treats of digitaline, is the only one which presents any interest in a practical point of view. They add, that it is only to this that they have wished to call the attention of the Academy, and that they have handed in the second part only as collateral information.*

Be that as it may, MM. Homolle and Quevenne investigate in so many separate paragraphs; 1st, *the purification of digitaline and its chemical properties;* 2d, *the exhibition of digitaline;* 3d, *the medicinal form in which digitaline is best administered.*

To purify crude digitaline, our authors treat it by ether slightly alcolhised (density 780), which separates the digitaline. But this liquor dissolves also the *digitalose*, and leaves the *digitalin*. To separate the former from digitaline, the solution is submitted to eva-

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* We believe we conform to the wish of the authors in not offering to the Academy an analysis of the second part. We shall content ourselves with enumerating in this note the principles which, besides Digitaline, have been hitherto extracted from digitalis. They are, 1st, Digitalose; 2d. Digitalin; 3d, Digitaloid (these three principles, as well as Digitaline, are classed among the neutral substances);[a] 4th, Digitalic acid; 5th, Antirrhinic acid; 6th, Digitoleic acid; 7th, Tannic acid; 8th, Starch; 9th, Sugar; 10th, Pectine; 11th, an azotized albuminous matter; 12th, an orange-red crystallisable coloring matter; 13th, Chlorophylle; 14th, a volatile oil.

[a] Voila! Chemical analysis may distinguish four substances with the slightest shades of difference; but here are etymological refinements too subtle for our crucible.—H. N. B.

poration, and the residue treated by alcohol at 60 degrees, which dissolves digitaline, and eliminates digitalose. Evaporated by a mild heat, this solution in weak alcohol finally gives digitaline *pure*, or at least retaining but very little of the two substances just mentioned, which cannot be completely isolated, so great, say MM. Homolle and Quevenne, is the *obstinacy* with which digitaline retains the last traces of these principles. These able experimenters have in vain made numerous attempts to crystallise digitaline thus obtained in a purer state than that described anteriorly by one of them.

This purification produced, digitaline appears under the form of scaly striæ or masses (according to the quantity of this substance) of a straw yellow, or resinoid aspect, more or less transparent, broken up with ease, and forming then a pale yellowish powder Once isolated, digitaline is unalterable in the air, it gives out a slight aromatic odor *sui generis*, and has a very marked bitter taste.

Digitaline is dissolved in small quantity in the serum of the blood, without producing in it any apparent change. The proportion dissolved appears to be the same as in water. It is also dissolved in the filtered gastric juice. (If an attempt is made to dissolve digitaline in the crude gastric broth or chyme, it is absorbed by the alimentary matters, and its bitter taste disappears, as is the case when animal carbon is thrown into its aqueous solution)

Digitaline exerts no action upon either of the test papers. It is dissolved in small quantity in water, and, so to speak, in all proportions in feeble or concentrated alcohol.

The characteristic and distinctive property of digitaline is that of producing an emerald green color with concentrated hydrochloric acid, and forming a muddy solution.

Digitaline belongs, as has been said above, to the class of immediate neutral principles. It combines neither with acids (tannin excepted) nor with alkalies.

To be certain of the *identity* or of the *quality* of digitaline, so important and truly capital a matter in a therapeutic point of view, MM. Homolle and Quevenne have had regard to the different degrees of bitterness of this substance; because, say they, "we believe it incontestable that its degree of bitterness is its degree of energy." To succeed in this test, it is necessary to proceed in the following manner:—

"Dissolve a given quantity of digitaline, one centigramme in two grammes of alcohol, and dilute with water progressively until the complete disappearance of the bitter taste. If the digitaline is good

it should require for this quantity the employment of two quarts of water."

"With a little practice, and with the aid of a pattern specimen which serves for comparison, the degree of bitterness may be appreciated in a very exact manner. According to the result obtained, it is admitted as good, or requires purification."

This means of appreciating the intensity of the taste of substances, (called the method of progressive dilution), already employed by other observers to judge of the richness of certain medicinal preparations, has been considered by MM. Homolle and Quevenne as a proper manner of obtaining digitaline always of equal strength.

MM. Homolle and Quevenne having thus succeeded in obtaining digitaline in that state which they call *identical*, it remained for them to determine what pharmaceutical form should be given to this medicine, having a fourfold reference to *safety*, *convenience*, *good preservation*, and *easy administration*.

The solution of this problem was the more important, since it concerned a product which possesses very great activity, an activity so great that it ought only to be administered by milligrammes, or, so to speak, in infinitesimal doses. It could not then, like sulphate of quinine, for example, and some other medicines, be prescribed in a direct manner and without a medium.

Among the different pharmaceutic forms, the choice of which might be a matter of dispute, MM. Homolle and Quevenne adopted that of *pill*, and to this they think the preference should be given. This form itself includes, as every one knows, several varieties. The variety "which has appeared to us to excel," say MM. Homolle and Quevenne, "is that of very small comfits, in which the active matter is enveloped under a layer of sugar, in such a manner that the patient, by reason of their very small volume, may swallow them easily without mastication, and consequently without perceiving any thing except the sugar which covers them." By reason of their small volume, these comfits have been designated by the name of *granules*. Two great advantages, among others, are found in this medicinal form; 1st, a certain dose, easily controlled both by the physician and patient, since it is only necessary to count the number of granules, each of which contains a milligramme of digitaline; 2d, a preservation to which MM. Homolle and Quevenne do not thus far know any limit.

Second Report.

Physiological and Therapeutic Action of Digitaline.

MM. Homolle and Quevenne have not been tardy in communicating to the Academy the desired compliment of their first researches, under the title of "Third Memoir upon Digitaline."

In this new Memoir, the authors propose to establish, "that digitaline is the sole active principle of digitalis; that it presents all its physiological and therapeutic properties, and that the constancy of its effects, as well as its inalterability, give to it an incontestable advantage over the pharmaceutic preparations of digitalis."

But let us see what are the physiological and therapeutic properties attributed to digitalis by the numerous observers who have devoted more or less important labors to its investigation.

1st. A constant emetico-cathartic action when it is administered in a sufficiently large dose.

2d. A diuretic action generally observed, although more rare.

3d. A very remarkable and altogether special action upon the circulation.

Besides, it provokes a slight cerebral irritation, characterized by dimness of vision, vertigo, cephalalgia, sleeplessness, and delirium.

Insisting, then, more particularly upon the *special* property of digitalis, we might say almost *specific*, our authors endeavor to determine the mode of action which digitalis exerts upon the central organ of the circulation, and afterwards the indications which this therapeutic agent is called to fulfil.

The French physicians in general, they say, consider digitalis as a sedative of the circulation; the English physicians recognize in it a primitively excitant action upon the circulatory centre, which is depressed only secondarily. Rasori places digitalis in the first rank of contra-stimulants, and makes it a succedaneum of blood-letting.

Joerg, of Leipzig, concludes from his researches upon digitalis, that it determines depression of the vascular system only consecutively.

"W. Hutchinson, who made conscientious and persevering experiments upon himself, verified the primitive increase of the action of the heart, followed by depression and disorder of this function."

To fulfil, as worthily and as completely as possible, the important and delicate task which the Academy has confided to us, we have not limited ourselves to presenting merely an accurate analysis of

this new portion of the work of MM. Homolle and Quevenne. It seemed necessary for us to remind our colleagues of the actual state of science in regard to the properties of digitalis, and to render an account of the clinical experiments to which we have devoted ourselves, in order to appreciate as rigorously as our methods of observation at the present time permit, the action of the new *active principle* of digitalis, the discovery of which belongs to the authors just named. This is the manner in which we have proceeded, and thence naturally, the division of our report into three parts; the first, devoted to a rapid historical sketch of the opinions advanced upon the properties of digitalis; the second, relative to the exposition of the researches of the authors of the memoir upon the properties of digitaline; and the third, containing the experiments of the commission.

[The first division of this report, as above intimated, is a brief *résumé* of the different opinions entertained in reference to the properties of digitalis, more especially its effects upon the circulation. While some maintain that the primitive action of this plant upon the heart is that of an excitant, and that depression takes place consecutively; others, and perhaps the larger number, assert that digitalis is primarily a sedative of the circulation; the authors of the Memoir, as well as the reporters, are partizans of the latter opinion. As this portion of the Report contains nothing new, I have thought best to present no part of it to the readers of the Journal.—*H. N. B.*]

Second Part.

Analytical Exposition of the Physiological and Clinical Experiments of the Authors of the Memoir upon the Properties of Digitaline, compared with those of the other preparations of Digitalis.

Article First.—*Physiological Experiments upon Man and Dogs.*—One of the authors made a trial of digitalis upon himself, with a truly exemplary precision, and repeated it seven times, leaving sufficient intervals between the trials.

From the analysis of the six first experiments made in the course of the years from 1842 to 1850, the result is, that the mean of the diminution of the pulsations of the heart and arteries was about four pulsations during, and five after, the administration of the medicine (sometimes digitalis, sometimes digitaline).

But we should note here the symptoms of intoxication which were manifested during the 5th experiment, under the influence of

two grammes and one decigramme of the powder of digitalis, of a superior quality, taken in the course of nine days, and the very notable diminution of the pulse which supervened at the same time. (From 72 it fell to 53 during the continuance of the symptoms, and to 55 after their disappearance; thus giving the differences, 19 and 17, that is to say, a mean difference which represents exactly one-fourth of the normal pulsations.)

We think it necessary to report, with some details, the seventh and last experiment, made in the month of Nov. last (1850), with the syrup of digitaline, 20 grammes of which contain a milligramme of this substance.

The experimenter administered, in eight days, 33 milligrammes of digitaline in syrup (4 milligrammes during four days, 2 one day, 5 one day, 6 one day).

Mean of the pulse during six days, counted at different hours of the day, before the experiment	67·47
Maximum	73·00
Minimum	63·00
Mean of the pulse during the eight days of administration	64·64
Mean during the ten days after administration	59·88
Minimum during the administration	54·00
Maximum	74·00
Minimum after the administration	50·00
Maximum	72·00

Comparing the mean of the normal pulse (67·47) with the minimum of the same pulse, after the administration of the medicine (50), we find a difference of 17·47, a difference equal to one-fourth of the pulsations in the normal state, the same as in the case of intoxication which we have noted above.

The patient suffered rather a sense of weakness than of pain in the stomach, and he observed that his appetite did not increase, as often happened to him after the use of the granules; slight disturbance of vision; nothing appreciable on the part of the kidneys. The experimenter remarked that the pulse returned suddenly to the normal state, or nearly so, under the influence of a long walk made the tenth day after the cessation of the exhibition of the syrup.

From the whole of the experiments, the result is, that the action of digitaline is nearly the same, whether we administer it in the state of syrup, that is to say, in previous solution, or in the state of granules, in which case it is dissolved gradually, but with sufficient promptness in the gastric juice. If any differences exist, they are

slight, and do not appear to declare in favor of the syrup, which gives rise to nausea and more marked cerebral symptoms.

Let us pass now to the experiments made upon two dogs, with the same precision as those the results of which we have just made known.

The first dog took interruptedly, but at six not very distant intervals (from the 10th of May to the 3d Sept., 1849), 552 granules or milligrammes of digitaline, in a daily dose of from two to ten milligrammes.

The mean of the pulse, before the experiment, was 59·94. This mean, after the six successive administrations, was 51·22, being a diminution of 8·72.

The second dog took in the same manner (from the 13th June to the 8th Sept., 1849), 398 granules of digitaline in the same daily dose.

The mean of the pulse, before the experiment, was 87·30. This mean, after the administration at four approximate intervals, was 69.93. Consequently, the diminution was 17·37. Add to this, that during the experiment, there were momentary diminutions amounting to 23 and even 31 pulsations, the latter being nearly double that just mentioned.

According to the experiments above analyzed, the *minimum* of the depression of the pulsations never corresponds, so to speak, with the period of administration of the digitalis or digitaline, but rather to that of repose after the cessation of the use of the medicine.

This curious result proves that the medicine continues its action some time after the cessation of its exhibition, and, without doubt, until no trace of it longer remains in the economy; whether its diminution is produced by any one of the numerous emunctories, or whether by a reaction yet unknown, it is transformed into some new compound completely deprived of the property which pure digitaline possesses.

Article Second.—*Clinical Experiments Reported by MM. Homolle and Quevenne.*—"It concerns us now to examine," say these authors, "whether ulterior practice has confirmed our first results. The facts collected by us, from observations taken in several hospital services, furnish an affirmative reply upon this subject.

"As to the *intolerance* of digitaline, which is in our opinion only a manifestation of its emetico-cathartic action, we have encountered it but three times out of more than a hundred persons to whom we

have administered this medicine; and in these three cases, discontinuance of the digitaline, or even diminution of its dose, was sufficient to suspend very quickly every unpleasant symptom.

"We think that those of our colleagues who have observed more obstinate gastric symptoms, should attribute them to this circumstance, that they commenced with too high doses, or exceeded those approved by experience.

"As for the toxic action noticed by MM. Bouchardat and Sandras, who having injected digitaline into the veins of some dogs, saw these animals perish in a short time, these facts, which have become the basis of exaggerated fears, have been badly interpreted. No account is taken of the mode of absorption, which so profoundly modifies the action of medicines, and of the danger which this may of itself produce. How many therapeutic agents, in fact, would medicine be compelled to renounce if it were necessary to put them to the same test? We can say truly, that these toxic phenomena, independent of the emetico-cathartic action, have never presented themselves to our observation. We may add, that vomiting, when digitaline is administered by the stomach in an exaggerated dose, frees the economy from the excess of the ingested medicine, and fulfilling, so to speak, the office of safety-valve, presents an impediment to the development of true toxic symptoms."

As to the comparative efficacy of the preparations of digitalis hitherto used, and digitaline, MM. Homolle and Quevenne leave to clinical experiment the burden of a final decision. They think that their own observations and those published hitherto, lead to the belief that the question will be resolved in favor of digitaline.

After these preliminaries, MM. Homolle and Quevenne report their own observations.

Having detailed eight cases, they add that, "in order not to increase the size of their memoir, they have omitted several observations of pleuritic effusions, and one of pericarditis, in which digitaline appeared to them manifestly to increase the resorption of the fluid; that they have also neglected those observations which only go to establish the fact that digitalione, like digitalis, diminishes the number of the pulsations of the heart, the experiments quoted in their first memoir leaving no doubt upon this point."

The commission, strengthened by its own experience, had no need, on its part, of more numerous observations, to be convinced that to digitaline belongs, no less than to digitalis, the admirable property of retarding the pulsations of the heart and arteries. But it received

with great eagerness facts proper to demonstrate, in an irrefragable manner, that digitaline possesses an action, a diuretic virtue, sufficiently energetic and constant not to be called in question by any of the observers who have long and conscientiously studied, at the bedside of patients, the real effects of digitaline.

MM. Homolle and Quevenne sum up thus their [pharmaceutic] parallel between digitaline and digitalis:

DIGITALINE.	DIGITALIS.
An unalterable type, to which digitaline may be invariably referred.	Impossibility of preserving unalterable a specimen which will serve indefinitely as a point of comparison.
Constant energy of the medicinal agent.	Unavoidable uncertainty in regard to quality, and consequently the degree of activity of the plant employed.
Possible appreciation of the quality of a given specimen of digitaline by the measure of the intensity of its bitterness, which ought to be such as to require two quarts of water to destroy the bitterness of a centigramme of digitaline.	Absence of any positive character, upon which we can depend, to appreciate the difference of quality between the different specimens of digitalis.
The extreme facility of its administration to every person, without exception.	Difficulty of administration to some persons, in consequence of its taste and smell.

To decide the choice in favor of digitaline, and cause the balance to incline definitely to its side, it is only necessary to cast into the scale the weight of a long and exact clinical experience. MM. Homolle and Quevenne have perfectly comprehended this. "As to the difference of action which may exist," say they, "between digitalis and digitaline, and the preference to be accorded in this respect to the one or the other, *it is for clinical experience to determine.* We may, for the present, refer to the testimony of Professor Bouillaud, who has studied the action of digitaline for several years, and does not hesitate to say, relying upon a long experience, that it far excels every other preparation of digitalis, in this, that it is less liable to cause vertigo, dimness of vision, ringing of the ears, &c."

The following fundamental propositions sum up all the researches of MM. Homolle and Quevenne, and to these the Reporters desire especially to call the attention of the Academy:

1. Digitaline (properly prepared) represents all the therapeutic properties of digitalis.

2. Digitaline exerts a regulating action upon the circulation, and retards its movements. This action, which is *essential* and nearly constant, requires only feeble doses, (ordinarily from two to five milligrammes in twenty-four hours, in adults.)

3. If we exceed the dose of four or five milligrammes in twenty-four hours, digitaline exerts an emetico-cathartic action, sometimes harsh and sudden, sometimes slow and gradual.

4. Digitaline produces a toxic action when it is absorbed in large doses. This action has been produced by injecting into the veins of a dog one centigramme of this substance. But, when administered by the stomach, the toxic action does not appear as dangerous as is generally supposed, the excess of the medicine being expelled from the economy, for the mere reason that it is not tolerated.

5. Compared with the powder of digitalis, which is considered as the best pharmaceutic preparation of this plant, digitaline should have the preference, since it offers greater facility of ingestion, a more certain action, and a more constant tolerance.

6. MM. Homolle and Quevenne add in a note, that digitaline produces also two other order of phenomena; a diuretic action and an excitation of the nervous centres, but that this double action is far from being constant.

7. Finally, among the effects of digitaline we shall notice the following, mentioned in the course of the work of MM. Homolle and Quevenne:

I. *Action upon the Eyes.*—In the course of the chemical manipulations, some fragments of digitaline being projected into the eye, the following was the result—a slight painful sensation in the organ, and, after four or five hours, disturbance of vision in such a manner that the flame of a taper appeared surrounded by an areola, having the colors of the rainbow. This effect was dissipated in the space of one day, without leaving any trace of it. During its continuance the pupil was a little dilated, appeared less contractile, and the crystalline lens appeared to present a certain degree of opalinity.

The effect above indicated is produced also when a person remains a length of time in an atmosphere charged with pulverulent emanations of digitaline.

II. *Action upon the Skin denuded of its Epidermis.*—Applied upon the denuded skin, in the feeble dose of a milligramme, and renewed at intervals of eight or ten hours, digitaline provokes a lively inflammation, with swelling, redness, and disagreeable numbness of the neighboring parts. This effect deprives us of the advantage of administering digitaline by the endermic method, a method so valuable in certain cases.

Third Part.

Clinical Researches made by the Reporter, [Bouillaud].

For about four or five years that we have administered digitaline in our clinical service, perhaps not a single day has passed in which we have not studied its action upon one or more subjects, attacked either by simple neuroses of the heart, but chiefly by more or less grave *chronic-organic* affections of this viscus and of the aorta; we have also administered it in six or eight well-marked cases of intermittent fever.

The total number of patients to whom we have given digitaline, amounts to, at least, one hundred and fifty or two hundred of different age and sex.

With the exception of three, we have observed in all a more or less considerable retardation of the pulsations of the heart and arteries, an effect which could not be attributed to any other cause than the administration of the medicine indicated. We hasten to say that in the three patients, in two especially, whose pulse was not sensibly retarded under the influence of the administration of digitaline, sufficiently prolonged, there existed a frequency of pulse kept up by a febrile phlegmasia. In two of these three cases, this phlegmasia had its seat in the envelopes of the heart (pericardium and endocardium), the same thing which was encountered in one of the cases reported by MM. Homolle and Quevenne.

It is true that three or four observations alone cannot resolve a grave question of therapeutics. But those to which we have referred authorize us to consider as very probable, at least, this proposition: that the frequency of the pulse entertained by our inflammatory *foyer*, presents an obstacle to the effect of digitaline, against which it almost completely fails.

In several cases in which the acceleration of the pulsations of the heart (palpitations) was accompanied by irregularities and intermissions, by disorder, *ataxia* of the normal rhythme of *this great spring* of the human machine, digitaline, like digitalis, not merely quieted the palpitations but also regulated, sometimes completely, sometimes incompletely, and for a longer or shorter period, the disorderly pulsations of the circulatory centre, and, in a manner, *restored this organ to reason*, which before—to use a common expression—*was light-headed* (*battait la campagne*).

Digitaline and digitalis are, then, at once a *retardator* and a regulator of the action of the circulatory centre. They constitute, also, a debilitator of this same action. In fact, in all cases in which the

pulsations of the heart have been retarded in a notable manner by digitaline, they have at the same time lost their force or their intensity; (so also of the normal or abnormal *bruits* of the heart.)

With a special dynamometer, or with the *sphygmometer*, the different degrees of this diminution of force might be *exactly* determined. Hitherto we have only appreciated this diminution with the hand, a sort of living and feeling *dynamometer*, which, by long training, acquires, like other organs of the same nature, an exquisite and—so to speak—a *mathematical* sensibility. Inspection concurs with palpation in our appreciation of the intensity of the pulsations of the heart. Finally, if the stethoscope is applied over the region of the point of the heart, this instrument is lifted up, undergoes a kind of extension, which is proportionate to the strength of the impulse of the circulatory centre.

We shall give, now, more precision to what we have hitherto said upon the retardation of the pulse, by laying before the Academy the *numerical* results furnished by fifteen patients, taken indiscriminately.

The mean of the pulse, before the administration, was ninety-six. The mean of the retardation in these fiften cases was forty-one, consequently about one-half the number (ninety-six) which represents the mean before the administration of digitaline.

In three cases, the number of pulsations to which the action of the heart was reduced remained as high as eighty, one hundred and two, one hundred and six. But these were patients attacked by grave *chronic-organic* affections of the heart, in whom the pulse beat from one hundred and forty to one hundred and seventy per minute.

In comparison with these *maximum* numbers of retardation, let us place those which represent the *minimum*. The latter are twelve and fourteen in two patients, and sixteen in two others; but, in one of these two last, the pulse beat only sixty before the exhibition of the medicine; and in the other, whose pulse was eighty-two, the digitaline was administered only during four days, (in all sixteen milligrammes). In the two others, the pulse was seventy-two in the first, and eighty-six in the second, who took the digitaline for seven days only.

The *mean* of the number of granules administered to our 15 patients, was 58. They were taken in the dose of 2, 3, 4, 5, 6, 7, per day. The mean of the number of days during which they were administered, was from 13 to 14.

In one subject, we gave 70 milligrammes in 18 days; in a second 82 in 14 days; in a third 98 in 20 days; in a fourth 164 in 40 days.

None of the patients suffered any remarkable symptom. As soon as headache, vertigo, or distress at the stomach supervened, we immediately suppressed the medicine.

In the 150 or 200 patients for whom we have prescribed digitaline, we have taken the pains to have the medicine administered in our presence at the time of our visit. In those cases in which the dose was taken in two parts, that of the evening was administered by the chief of the clinique himself, or by the matron of the hall, to those patients who were to take the digitaline upon going to bed. One only, of whom we have spoken above, has manifested grave cerebral symptoms, which however completely disappeared under the influence of the treatment directed against them.

One of the 15 patients who have made the subject of our statistical *résumé*, belonged to the category of six or eight persons attacked by well marked intermittent fever, whom we have treated with digitaline in order to ascertain whether this principle possesses the febrifuge virtue which we have anteriorly verified in the powder of digitalis administered internally and externally (by the endemic method). These six or eight persons, treated thus in the presence of those who followed the clinique, were cured very promptly and without relapse. Under this new point of view, digitaline may replace, then, the preparations of digitalis formerly used.

In noticing these facts, having an authenticity which cannot be contested, the reporter has no other object than to call the attention of observers to a new and very curious property of digitalis, and does not pretend to maintain that this plant can be advantageously substituted for quinine, which he considers, on the contrary, the first, and, so to speak, the prince of febrifuges. But ulterior researches will demonstrate, perhaps, that digitalis is called to figure, with some distinction, among the best succedanea of Peruvian bark.

Now even admitting that digitalis, in spite of the oft-repeated experiments of the reporter, does not possess a febrifuge power, it is very certain that it possesses the property of retarding, moderating and regulating the pulsations of the heart, and that it does this not in a secondary consecutive manner, as different experimenters have pretended, but in a primitive and immediate manner. A proposition not less certain, according to the researches consigned in the Memoir of MM. Homolle and Quevenne, and according to those of the commission, is, that digitaline is the principle to which digitalis owes the precious and admirable property which we have mentioned, as quinquina owes to quinine the property, certainly not less precious and less admirable, of curing intermittent fevers.

PART SECOND.

CRITICAL BIBLIOGRAPHICAL NOTICES.

ART. VIII.—*New Remedies, with Formulæ for their Administration*—By ROBLEY DUNGLISON, M. D., Professor of the Institutes of Medicine, etc., in the Jefferson Medical College, Philadelphia. Sixth edition, with extensive additions. Philadelphia: Blanchard & Lea. 1851. 8vo., pp 755.

IT will be seen from the title that this is a new edition of one of Dr. Dunglison's most popular works, containing several therapeutic agents newly introduced into pharmacology, and many old ones brought prominently forward with novel applications, which circumstance may in a certain sense of the word entitle them to the name of *new remedies*. In the preface of this edition we find the following articles enumerated as having been made to it, viz, Andansonia digitata, Benzoate of Ammonia, Valeriate of Bismuth, Sulphate of Cadmium, Chloroform, Collodion, Cantharidal Collodion, Cotyledon Umbilicus, Sulphuric Ether, Compound Ether, Hura Braziliensis, Iberis Amara, Iodic Acid, Iodide of Chloride of Mercury, Powdered Iron, Citrate of Magnetic Oxide of Iron, Citrate of Iron and Magnesia, Sulphate of Iron and Alumina, Tannate of Iron, Valerianate of Iron, Nitrate of Lead, Lemon Juice, Citrate of Magnesia, Salts of Manganese, Oleum Cadinum, Arsneate of Quinea, Hydriodate of Iron and Quinia, Sanicula Marilandica and Sumbul. Thus it will be seen that many new additions have been made to this edition, selected principally from foreign journals. We say principally, for the reason that it is easily to be discovered that the same care and research have not been taken in examining and noting the facts contained in our home journals as those of foreign ones—a sin. not of commission, but omission, and which we would most gladly have seen wiped off. To

the index of diseases we perceive that the author has added the particular pages in which the various remedies used in those diseases are referred to.

ART. IX.—*The Dissector; or Practical and Surgical Anatomy.*—By ERASMUS WILSON, author of a System of Human Anatomy, etc. With one hundred and fifteen illustrations. Edited by PAUL B. GODDARD, M. D. A new and improved edition. Philadelphia: Blanchard & Lea. 1851. 12mo., pp. 458.

IN this work of Mr. Wilson, one peculiarly adapted to the wants of students, the American editor has somewhat remodelled its arrangement. In the English edition, as well also as in the first American, the work was so arranged that the student commenced his dissections with the extremities. In this, on the contrary, the muscles and viscera of the abdomen claim his first attention. We look upon this change as a decided improvement, and we doubt not will render it a still greater favorite with the American student.

ART. X.—*On the Theory and Practice of Midwifery.*—By FLEETWOOD CHURCHILL, M. D, M. R. I. A., Hon. Fellow of the College of Physicians in Ireland; Corresponding Member of the American National Institute, etc., etc. With notes and additions by D. FRANCIS CONDIE, M. D., Secretary to the College of Physicians, etc., etc. With one hundred and thirty-nine illustrations. A new American from the last improved Dublin edition. Philadelphia: Blanchard & Lea. 1851. 8vo., pp. 510.

BUT few works on Midwifery can more justly claim popularity than this. The clearness and precision of style in which it is written, and the great amount of statistical research which it contains, have served to place it in the first rank of works in this department of medical science. It is only necessary for us to state that this edition is in many points superior to former ones, which circumstance must serve to increase still more its popularity with all classes of its readers.

ART. XI.—*Minor Surgery; or Hints on the every-day Duties of the Surgeon.*—By HENRY H. SMITH, M. D., Assistant Lecturer on Clinical Surgery in the University of Pennsylvania; one of the surgeons to St. Joseph's Hospital; Lecturer on the Principles and

Practice of Surgery in the Philadelphia Medical Institute, etc. Third edition, with numerous additions. Illustrated with 247 engravings. Philadelphia: Barrington & Haswell. 1850. 12mo. pp. 456.

This to the young practitioner is an exceedingly useful volume, well calculated to render him valuable aid in periods of doubt. The improvements made in this edition will be principally found in Part Fifth of the work under the following heads: "Duties of Assistants in Operations;" "The Mode of conducting Etherization;" The Mechanical treatment of Club Foot;" "The Cure of Aneurism by Compression;" and the "Catoptric Diagnosis of Cataract." We notice several other additions scattered through the volume, which are in keeping with the improvements of the day, and which will, together with the foregoing, we doubt not, tend to sustain the previous good character of the "Hints to Minor Surgery."

Art. XII.—*The Pharmacopœa of the United States of America, by Authority of the National Medical Convention, held at Washington*, A. D. 1850. Philadelphia: Lippincott, Grambo, & Co., Successors to Grigg, Elliot, & Co., 1851. 8vo. pp. 317.

This is the third revision of the United States Pharmacopœa since its first publication, in 1820. The plan adopted in the revision of 1840 is adhered to in this, and the changes made appear to be in the individual contents only. In the language used in the preface, "a few names have been altered; some medicines have been transposed from one of the two catalogues of the *Materia Medica* to the other; new medicines and preparations have been introduced, and many of the processes have been amended, replaced by others, or altogether omitted. The section of the Fluid Extracts is quite new." Thus it will be seen that all that was essentially needed, to make our pharmacopœa a uniform guide for the profession, has been bestowed upon it, and we feel quite certain that the thanks of the profession have been merited by the Convention and its Committee of Revision and Publication. The typographical execution of the work is *good* and does credit to the publishers. We commend this publication to the especial attention of the profession. No physician should be without a copy of it.

ART. XIII.—*A Treatise on Dislocations and Fractures of the Joints.* By SIR ASTLEY COOPER, BART., F.R.S., Sergeant Surgeon to the King, etc. A new Edition, much enlarged. Edited by BRANSBY B. COOPER, F.R.S., Surgeon to Guy's Hospital. With Additional Observations, and a Memoir of the Author. A new American Edition. Philadelphia: Blanchard & Lea, 1851. 8vo. pp. 496.

This is a reprint of the American edition of 1844, on superior type and paper. Its position, as one of the standard monographs of the profession, precludes the necessity of our enlarging upon its merits. It should be in the library of every practitioner of medicine.

ART. XIV.—*The Anatomy, Physiology and Pathology of the Eye.* By HENRY HOWARD, M.R.C.S.L., Surgeon to the Montreal Eye and Ear Institution. John Churchill, London; Armour & Ramsay, Montreal, 1851. 8vo. pp. 517.

We regret that circumstances beyond our control have prevented us, till now, from giving this volume a notice; the more so from the fact it contains no inconsiderable amount of practical information, relative to the treatment of diseases of the eye. The author, a pupil of Dr. Jacob, of Dublin, has served us with a full account of many of the favorite views of his preceptor. In glancing over the work, we are sorry to see so many typographical errors, which mar its beauty. These we hope to see corrected in subsequent editions.

ART. XV.—*Surgical Anatomy.* By JOSEPH MACLISE, Surgeon. With colored Plates. Part Four. Philadelphia: Blanchard & Lea, 1851.

While noticing the previous numbers of this work, we have spoken of it in such terms as can hardly fail to draw the attention of our readers to its superior value. The number before us is fully equal to any of its predecessors. It will prove particularly worthy of the attention of those interested in the surgical pathology of the genito-urinary organs. It completes the number of plates originally promised and expected to finish the work; but, as there has been an additional English part promised, the publishers announce that one more part, at half the price of the former, will be issued shortly, to complete the set. We are pleased to see that it meets with that encouragement which its intrinsic merit should command from the profession.

PART THIRD.

FOREIGN MEDICAL RETROSPECT.

PRACTICAL MEDICINE AND PATHOLOGY.

Extracts from the French Journals, on Cauterization in Sciatica, and Cod-Liver Oil in Phthisis. Translated for the New-York Journal of Medicine. By H. N. Bennett, M. D.

In the *Journal des Connaissances Medico-Chirurgicales* for January 2d and February 1st, 1851, are two original articles, and an extract from the pen of M. Malgaigne, upon the subject of "cauterization of the ear for the cure of sciatica." It requires a certain amount of credulity to confide in the efficacy of so *bizarre* a therapeutic method as this, especially when employed against so inveterate a malady as sciatica. Our ardent confrères, however, are burning the ears of their patients with a zeal worthy of all the success claimed for this novel proceeding against a severe form of neuralgia. Truly, the celebrated sarcasm of Mephistophiles, beginning, "Der Geist der Medicin ist bicht zu fassen," is scarcely applicable to these times. But facts must speak for themselves, and the profession judge of their value.

The first case is by Dr. Chavane. A female, aged forty-one years, was attacked, in 1846, by a sciatica of the left side, for which she presented herself at the Hospital for treatment. The usual remedies were tried, and with such success that, at the end of four weeks, she left the establishment perfectly cured. She remained in good health up to the first of October, 1850, After a period of damp weather, this lady "was seized suddenly with a new attack of the pain which she had already so cruelly suffered four years previous. It was in the thick part of the buttock, at the hollow of the ham, the length of the external side of the thigh and leg, as far as the toes of the limb formerly affected, that the pains were constantly repeated with great severity. They were so acute that the patient could not execute the least movement without uttering involuntary cries; but they were

not manifested in all these parts at the same moment; at intervals, they were felt only in one or the other of these regions."

She was treated, at first, in a manner similar to that which had succeeded at her first attack. But after three days, "the state of the patient not having changed," says Dr Chavane, "I proposed to her, cauterization of the ear; and, in the hope of a prompt cure, which I held out to her as probable, she consented without hesitation. I held the red iron perpendicular, at about three lines from the origin of the cartilage, for so short a time (about two seconds) that the patient scarcely perceived it, although a small black eschar was already formed. But, as I have said, she suffered so little that, fearing I had operated with so much caution as to fail of attaining the end, a quarter of an hour after, I proposed a re-application of the iron, to which she again consented. This time I kept the cautery applied about three seconds; the eschar was made a little broader, a little deeper, and the patient suffered slightly for two or three minutes; the heart beat more strongly, the respiration was a little more frequent, and her sight, she said, was dimmed; but this state lasted only a short time, and the spot where the cautery had been applied was so little painful that I made no application to it.

"She passed this night much better than the preceeding. The next day, at my visit, I induced her to get out of bed; and, assisted only by a staff, she went to the end of the hall and returned, saying that she suffered nothing more than some feebleness of the leg and a slight pain in the hip. The day following, after a still more comfortable night, she had only a slight pain in the ham; and, during several days which she passed at the hospital before her discharge, nothing more of her disease remained. She then returned home, perfectly well and highly gratified with a cure obtained at so little expense and in so short a time."

[The editor of the Journal, in a note appended to the report of this case, mentions four others of success from the same operation, two failures, and one relapsed.]

Dr. Cave, after remarking that the efficacy of cauterization of the helix, for the cure of sciataca, is now a settled question (question résolue), reports four cases as follows:—

"My first patient, who is a wheelwright, perceived so great an amelioration from the cauterization which was practised upon him at the end of June, that, from the next day after the operation, I believed the cure complete. Unfortunately, there was an intense relapse the third day, and, although the patient is at this moment perfectly well, I do not wish to accord the honor to cauterization, but rather to time, and to all the means previously employed.

"My second patient, called Reynier, is a farmer, aged forty-five years. His sciatica is of seven years' standing; it has gradually deprived Reynier of the power of pursuing the rude labors of agriculture, and has especially rendered him incapable of following or directing his plough. I operated upon him in presence of my colleague and friend, Dr. Clement, the 27th Sept., 1850. A terrible

exacerbation occurred the next day. The patient thought he should die; all his limbs seemed to him broken and shattered; the close of the day, however, brought a little quiet, afterwards sleep; and, to his great astonishment, Reynier awoke in the morning, suffering nothing more than a degree of numbness, which was so quickly dissipated, that before evening he followed his plough. From this epoch, Reynier suffered no more; his gratitude, and his faith in cauterization, are so great that he goes about seeking his old companions in suffering, to induce them to be cured. He, in fact, brought me the two patients who are the subjects of the following observations.

"The ninth of October, 1850, I operated on Matthew Corneille, a sawyer, and M. Pin, proprietor. These patients are of nearly the same age. I cauterized them successively. Matthew, who had suffered for nine years, returned home perfectly cured, and has since had no return of the difficulty.

"A curious phenomenon followed the cauterization in M. Pin, who had been affected by sciataca for three years. The next day the pain and lameness left the right limb and fixed upon the left. This singular metastasis lasted nearly fifteen days, when the neuralgia returned again to its former seat. My colleague, Dr. Clement, who assisted at the first operation, advised him to a new cauterization, which was made the third of November, and from that day all pain and lameness have disappeared."

M Malgaigne, after discussing the merits of the new method, and the objections raised against it, concludes as follows: "It results from the first operations, that cauterization of the ear has produced one-third of radical cures. The six cases reported by the *Gazette de Lyon*, have furnished two cures. Out of the seven cases of M. Vigla, two have succeeded wonderfully. M. Malgaigne has since performed cauterization of the ear twelve times, and four times with complete success."

On the employment of Cod-Liver Oil in the different periods of Pulmonary Phthisis. By Dr. Duclos, of Tours.—In general, says the author, cod-liver oil administered in the first period of pulmonary phthisis, and especially before the establishment of hectic fever, suspends this disease, or, at least, retards its development; the cough is quickly modified, whether it exists alone or accompanied by catarrhal secretion; but it does not entirely disappear until the health is sensibly re-established, though the catarrhal secretion is modified much sooner. It is not until the end of three weeks or a month that the influence of cod-liver oil is felt upon the economy.

In the second period of phthisis, the cod-liver oil becomes only a moderator of the symptoms; the feebleness diminishes a little, as well as the night sweats, and the febrile exacerbations at evening; the emaciation does not increase; the cough is less violent, and the ex-

pectoration more easy; but all this is a mere retardation, and not a complete arrest of the progressive march of the disease. There are, however, some cases, but these are quite rare, in which results are obtained as fortunate as in the first period of the malady.

In the third stage, cod-liver oil produces no benefit, and may even do mischief. The patients bear it with great difficulty, and there are some cases in which it produces diarrhœa difficult to control, and in which it increases the cough and febrile exacerbations.—*Journal des Connaissances Medico-Chirurgicales.*

Mode of Propagation of Measles. By Dr. Panum, of Copenhagen. —The Faroe Islands, situated, as is well known, between Shetland and Iceland, were in 1846 invaded by an epidemic of measles. The disease, which had commenced in April, ceased in October, and of 7782 inhabitants, more than 6000 suffered from it. Since 1781, it may be literally said, that not a single case of measles has been observed among them—hence all were ready to receive the contagion. Still there existed certain remarkable and exceptional conditions, which may assist in explaining the enormous extension of the epidemic. Not only are the Faroe Islands separated from the rest of the world by their geograpical position; but, by a commercial monopoly which has existed for ages, the islanders have no right to sell the produce of their industry except at the government counting-house (*comptoir*), and here only can they procure articles for their own consumption. Such extreme isolation ensures an almost complete immunity from contagious diseases. The mean duration of life is in these islands very high, and the most considerable mortality occurs between 80 and 90.* The climate and mode of life are far from favorable; hence it is to the absence of epidemic and contagious influences that the low rate of mortality is attributable. Unfortunately, no sooner does a contagious disorder find its way into the islands, than the extreme misery of the inhabitants causes it to assume a degree of intensity for which a parallel can scarcely be elsewhere found. While in Denmark measles is chiefly seen among infants, and for the most part spares adults. I have seen villages among the Faroe Islands, where 100 patients more than 80 were at the same time confined to bed. The Danish government was obliged to send out two physicians, Dr. Manicus and myself. The circumstances above mentioned—the peculiar position of my field of observation—have enabled me to gather some information on the subject of the contagious property of measles, which may, perhaps, be read with interest.

There are seventeen inhabited islands, separated by straits, which the currents render it dangerous to cross. The mountainous nature of the soil compels the inhabitants to cluster together along the

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* "La plus grande mortalité tombe entre 80 et 90 ans." We quote the author's words, as the fact recorded sounds rather startling.—Ed.

coasts. There have thus arisen villages, of which the most populous hardly number more than 200 inhabitants—the town of Thorshavn, the seat of government, contains only 800 souls. Each village forms a sort of family without communication with the neighboring localities. To such a degree is isolation pushed, that the presence of a stranger, or of an inhabitant from a neighboring village, is immediately known to the whole community, is often set down in the calendar as a marvel, and long continued a subject of conversation. Fears excited by the epidemic of measles rendered intercommunication even more guarded. I could almost, in each village, follow the disease from its first appearance, tracing its progress from individual to individual. The reader will consequently understand what unusual facilities I possessed for studying the mode of propagation of measles, during four months spent on thirteen out of the seventeen islands.

The length of the period of incubation of measles is far from satisfactorily determined—different authors state it at eight, ten, and fourteen days. Others, with more reserve, assign no fixed and regular period to the first stage of the disease. In great cities it is impossible to ascertain at what precise moment an individual has been subjected to the contagious influence. To obtain results of sufficient accuracy, the observer must be placed in similar circumstances to myself on the Faroe Islands.

The first native attacked with measles was a laborer, now resident at Thorshavn. He had left Copenhagen on the 20th March, had arrived on the 28th in perfect health, and became ill on the 1st of April. About fourteen days afterwards, his two most intimate friends showed the first symptoms of the disease. This case, which I did not personally witness, excited my attention and induced me to undertake a series of observations on the duration of the incubation.

On the 4th June, ten men of Tjornevig, sailing in the same boat, had taken part in a great fishing expedition with the inhabitants of another village. On the 18th June all ten were affected with measles, after two to four days of premonitory symptoms. They had been in contact only with the fishers from Westmannhavn, who were either convalescents from the same disease, or had been living in the midst of others affected by it. In from twelve to sixteen days after the appearance of the exanthema in these ten individuals, almost the whole population of the village were covered with the same eruption.

Here, then, was sufficient reason to suspect that the contagion might lurk in the organism in a latent condition, or at least without exciting the specific eruption, for a period of from thirteen to fourteen days. In fifty-two localities I collected accurately the names of persons first affected with measles, the date of the appearance of the eruption, and the date of the invasion of the disease in the inhabitants to whom it spread. It would be worse than useless to introduce each of these tables here; it is enough to say that everywhere facts confirmed my original supposition, and that no exception to the

rule occurred. I shall merely mention, in a summary manner, some observations which establish, in the most conclusive way, the numerical results obtained.

At Hattervig, a young man, the first sufferer, assured me that the eruption in his case appeared *ten* days after his arrival in an infected village. This was a solitary instance, and the patient afterwards contradicted the false information which he had given me. At Fuglefjord, the daughter of my host was cured of the disease from which the other nine members of the family had not as yet suffered. I asked on what day the rash had appeared on the girl, and taking an almanac, made a stroke under the *fourteenth* day, telling the family that this was the day when the disease was likely to appear among them. I learnt, on my return, that this prediction had been but too accurately verified by the eruption appearing on all the nine.

The Great Dimon is a very little islet, inhabited only by a family of eighteen persons. A boat, manned by some of the men, visited Tveraa, where the epidemic raged, and where the boat remained only a few hours. Ten days afterwards the whole boat's crew were in their ordinary health—on the fourteenth day all had the eruption of measles, and fourteen days afterwards the rash, with the same regularity, appeared on all the remaining members of the family.

At Skaalevig, the only one of the islands where the houses are isolated, standing at considerable distances apart, the contagion spread less rapidly, but in following its successive outbreaks even here, the law which I have laid down was found to be equally observed.

Hence I believe it may be regarded as a constant law, that the *contagion* of measles, once introduced into the system, does not at first manifest its presence by any sign, and that after a premonitory stage of indeterminate duration, the eruption makes its appearance on the thirteenth or fourteenth day after infection. Undoubtedly peculiarities in the constitution, regimen, &c., of individuals, may hasten or retard the appearance of the exanthema, but these influences are far less potent than, *a priori*, might be supposed. The greatest variation on one side or other of the period specified, is at the utmost twenty-four hours. After the striking coincidence of the observations which I have made in fifty-two villages, ought not exceptions (which I have never met with), if they exist, to be accounted for by the inexactitude of the observer? Whenever I have been inclined to contest evidence, which at first seemed to shake my conviction, I have finally found, that far from invalidating, it served to confirm the rule laid down. According to observations made at Copenhagen, the incubation of variola extends through fourteen days. The analogy between the two eruptive diseases, seems to me to attach considerable interest to these observations.

A circumstance which causes some uncertainty in prosecuting such researches is the indeterminate duration of the premonitory catarrh. Some of my patients suffered six or eight days before the eruption, from cough, slight ophthalmia, and febrile disturbance; in others, these symptoms were not noticed till four or six days before

the rash; in the majority they were not observed till within a period of from two to four days immediately preceding the exanthema. Exact numerical results can only be obtained by comparing the date of contact with the sick and that of the appearance of the measles.

If we admit as a principle, that the incubation occupies from thirteen to fourteen days, and if, on the other hand, instances, both numerous and well authenticated, prove that there generally elapse exactly thirteen or fourteen days between the first symptoms of eruption on an individual, and its subsequent appearance on others, to whom he communicates it, is it not evident that the contagion is effected during the *eruptive stage?* We may, at least, conclude that measles in the latent stage is not contagious. Is it so during the premonitory stage? It is difficult to decide. Although I am acquainted with no facts which demonstrate the possibility of transmission during the simply catarrhal stage, I am not prepared to establish the contrary.

It is generally believed that measles is peculiarly contagious during the desquamative stage. On what foundation does this opinion rest? I cannot tell; for my own part I have never seen a case to convince me that contagion took place at the desquamative period. The transmission, if the period above assigned to the incubation be regarded as constant, is almost always, if not in every case, effected at the period when the spots make their appearance. Never, in the course of the events which I witnessed, was an individual attacked with measles more than fourteen days after the disappearance of the exanthema from the individual who might have infected him. In a word, measles is highly contagious at the outset, and during the course of the eruptive stage; it is, on the other hand, doubtful if it be contagious at all in the catarrhal or desquamative stages.

As for the second attacks of measles, it is remarkable that all the old people of the Faroe Islands, who had suffered in the epidemic of 1781 (and of these there were many), escaped in 1846; I could cite a hundred instances from my own observation. This fact is the more conclusive, since age (even very advanced) in no measure diminishes the susceptibility. As far as I know, very old persons, who had not been exposed to the earlier epidemic, all suffered from the recent one, while certain young people, living in the midst of the disease, were spared.

The degree of intensity with which we may suppose the contagious principle of rubeola endowed, is not well defined. The following facts will, perhaps, throw a little light on this subject. On the 2d June a crew embarked at Klaksvig, to fetch articles of merchandise from Funding. They were prevented from returning till they had helped to unlade a vessel on board of which were men just recovering from measles, which also prevailed extensively in the port. They entered no house in Funding but the counting-house. On returning, the men of Klaksvig threw away the coverings of their merchandise, washed themselves carefully, changed their clothes, &c. None of them caught the disease till the 3d July, when it first made its ap-

pearance in Klaksvig. But the five inhabitants of Nordre-Gjov, who had accompanied them to Funding, and on their return had not used the same precautions, although exposed to the same influences, suffered on the fourteenth day after their exposure to the contagion.

When I arrived at Klaksvig, such was the terror of the islanders, that nobody would come near me, although it is a received opinion among them that doctors do not convey contagious miasmata. Three weeks before Pentecost, the surgeon of the country, called to Klaksvig to exercise his skill, had been obliged to pass a night in the village; measles appeared fourteen days afterwards in the house where he had lodged. The development of the disease could be attributed to no other cause, for not a single inhabitant of the house or island had had communication with an infected locality, and no other stranger had entered the village. At Midtvaag measles was introduced by a midwife, who had attended the sick in a neighboring island. The girl who washed the midwife's clothes was the first to suffer.

These instances tend to show that measles possesses a contagious power more virulent than is usually assigned to it.

Whatever may be the value of simple prophylactic means, I consider it unquestionable that isolation is the most effectual means of arresting the development of the disease. Thus, in several villages, by interrupting the communication with neighbors, families were saved. I may cite, as instances, two families at Saxen; ten at Midtvaag; ten at Sandevaag; half the village at Thorsvig. Different localities were preserved by a rigorous "cordon sanitaire"—their respective populations varying from 26 to 240. About 1500 islanders may, upon the whole, be said to owe their escape to these sanitary cordons or quarantine regulations.

In 6000 cases, of which I myself saw and treated 1000, there did not occur a case tending to prove the existence of "morbillose miasmata." Everywhere the disease passed from man to man—from village to village—contagion mediate or direct was evident. The two physicians of the Faroe Islands regarded the measles as of miasmatic nature, and as susceptible of transmission through the atmospheric air. Hence, at the outset of the disease, no precaution was taken by the authorities to interrupt communications and prevent the extension of the disease. Experience had, in 1781, shown what services quarantine could render—recourse was not had to it till the time for good was past. It is to be hoped that the experience so dearly bought in 1846 will have its fruits. The contagious nature of measles is so clearly proved that, in my opinion, the physician would violate his duty who should act as if it were not so. (Translated from *Archives Générales de Médicine*, April, 1851. p. 451. Originally published in *Archiv. f. Physiol. Heilkunde*, t. ii.)—*Monthly Jour. of Med. Science.*

On the Diagnosis of Intra-Thoracic Cancer. By Dr. A. Kilgour.—The diagnosis of the internal disease may be made from more or less of the following particulars:

1. The individual is past the middle period of life.

2. He has much of the haggard and dirty sallow countenance of the malignant cachexia.

3. The pulse is quick, generally over 100, and some difference will be found in the pulsations of the carotid and the radial of the side affected, as compared with the other.

4. There is more or less cough, generally ringing, short, and dry; in other cases attended with sputa, but I have never seen the "red-currant jelly," as described by Stokes.

5. There is more or less dyspnœa, and paroxysms like angina. Tightness of the chest, huskiness, loss of voice, and dysphagia, are also present late in the disease.

6. The appetite is more or less impaired, and if the liver or pancreas or pylorus be affected with the same disease, tuberose swellings will be detected by manipulation.

The physical signs will be:

1. The puffy swelling, or hard tumor in the neck. If no swelling be found there, an examination should be made, to ascertain whether any signs of disease exist in the glands of the groin, axillæ, or testes, and the region of the liver and abdomen should be carefully manipulated.

2. Dulness on percussion, on one side, most distinct under the clavicle, and extending more or less downwards; the dulness unaffected by change of posture.

3. Absence of respiration over the seat of the dulness, while it is heard faintly behind and below.

4. No vocal fremitus over the affected part of the chest.

5. The part is not so freely moved in respiration, as the corresponding part of the opposite side.

6. If the disease be on the left side, more than usual pulsation may be observed between the first and second, or second and third ribs, while the beat of the heart in the præcordial region is weak and distant. There may also be a bellows' sound, or the to-and-fro sound of pericarditis.

The diseases with which the disease is liable to be confounded are laid down by the author as pneumonia, tubercular deposit, pleuritic effusion, and aneurism. Acute pneumonia, he observes, is generally readily known—as is also tubercular consolidation, by the cough and expectoration, and stethoscopic signs, together with the history and appearance of the patient. Pleuritic effusion is seldom confined to the upper part of the chest. Aneurism is the most difficult to distinguish, but the diagnosis is simplified, by recollecting that in aneurism the pulsation, when present, is more distinct, and that the dulness is less in proportion, while in cancer the dulness is extensive, the cough is peculiar, and the superficial veins of the thorax and neck are tortuous and distended.—*Dublin Med. Press.*

A Statistical Report upon Disease of the Heart, derived from a consideration of all the cases admitted into St. George's Hospital during the last two years and a half. By Dr. Barclay.—Rheumatism is first considered as one of its causes. Divided into two nearly equal classes—those really inflammatory or acute, and those less so, or sub-acute,—the former class is found to contain sixty-seven cases with cardiac lesion, sixty-four without, and twenty-one doubtful. Endocardial murmur is found not to be certain evidence of disease, even in the most acute cases. Females are slightly more liable to acute rheumatism than males, but less liable to a recurrence of the disease. Females are more decidedly liable in a larger proportion to cardiac complication, and this is especially proved by the existence of friction-sound in the proportion of three females to two males. Cardiac complication exists eighteen or twenty per cent. more frequently in subsequent attacks than in primary ones. It is in the proportion of three to two of all the cases up to the age of twenty-five, and falls very rapidly after that age. The cases of sub-acute and chronic rheumatism furnish no examples of recent inflammation of the heart, but a considerable number of cases of old disease. So far as could be ascertained, these were almost all traceable to previous acute attacks, and were only about one-third of the cases which had previously suffered from acute rheumatism. The post-mortem appearances of recent inflammation are found associated with acute rheumatism, with disease of the kidney with inflammation of the peritoneum and pleura, and with old disease of the heart, especially when hypertrophy existed, and with turbulent action during life. The cases of old disease of the heart are divided into sixty-one rheumatic, seventy non-rheumatic, and sixty-nine doubtful. They show a very considerable preponderance of males, especially among fatal cases. Up to the age of twenty, almost the whole, and even as far as thirty, more than half the cases are associated with acute rheumatism. In the next twenty years, the non-rheumatic almost double the rheumatic cases, and after fifty, there are scarcely any derivable from rheumatism at all. The duration of rheumatic cases, dating from the first attack of acute rheumatism to death, is generally much longer for females than for males, varying in the latter from four to six years; in the former, from twelve to sixteen years. Four out of seven fatal cases of acute rheumatism, and twelve out of eighteen of older standing, are associated with pericarditis, which is always severe and extensive; but universal adhesion is neither the constant nor even the common result of rheumatic pericarditis, and it exists in cases where the previous existence of rheumatism is altogether denied. In valvular disease there are eighteen rheumatic cases, twenty-three non-rheumatic, and twelve doubtful. The recent cases are all examples of inflammation of the mitral. When old and recent disease exist together, and when old disease is seen in different stages, the mitral valve generally appears to have been first attacked, and the aortic secondarily; and hence the preponderance of double

valvular lesion in rheumatic cases, seems to be due to renewed inflammations at distinct periods. Inflammatory thickening occurs also in several cases in which there had been no rheumatism. Disease of the kidney is associated with two cases of simple recent fibrinous deposit on the valves, and three of recent pericarditis, in which no other cause was known to have been in operation. It seems questionable how far this can be taken as a cause of great thickening of the valves, or of an adherent pericardium. Disease of each set of valves seems to produce, in nearly equal proportions, hypertrophy and dilatation, but aortic regurgitation especially the latter; atheroma of the aorta, more commonly hypertrophy; adhesion of the pericardium, chiefly dilatation. Disease of the kidney is associated with an immense majority of the cases of hypertrophy, and similarly of all the cases of disease of the kidney; more than a third presented on post-mortem examination more or less of hypertrophy of the heart. A table is appended, in which the post-mortem appearances are arranged, of all the cases in which clinical history threw any light on the disease of the heart found after death.—*Dublin Med. Press.*

Treatment of Febrile and other Diseases through the medium of Cutaneous Surface. By Mr. Taylor.—At a meeting of the Medical Society of London, held on the 31st of May last, Mr. Taylor read a paper on the beneficial effects of lardaceous inunction in febrile diseases. "The author began by alluding to the great mortality of fever, typhus, scarlatina, and measles in this country, which called for serious consideration. He then entered into a history of several such cases, in which he had been enabled to trace out that the agent which contributed greatly to the recovery of such patients, was lardaceous inunction. It allayed the dryness of the skin and promoted perspiration, producing sleep. He then entered largely on the subject of the function of the skin, and the noxious effects resulting from the arrest of its secretion upon the animal economy, and the good effect produced in the course of many diseases by the restoration of its function. The author then entered into a comparison between cold affusions or water-sponging and lardaceous inunction; the first being, in most cases, but temporary, and not unfrequently attended by danger. He then gave the history of cases of measles, fever, and scarlatina, illustrating the happy results of inunction; and concluded by strongly recommending this course of practice, not to supersede other means, but as one of the most powerful adjuvants he was acquainted with.

"In the discussion which ensued various fellows took part. Was the plan recommended novel? It was contended that it was not so, and Celsus was referred to in evidence. But this was met by a counter-statement that Celsus had never recommended oil in the mode practised by Mr. Taylor; but merely a mixture of oil and water to be rubbed on the surface to cool it. In fact, oil was used generally by the ancients in most diseases. Had the oil any effect

per se? It was generally considered that the real benefit in cases where Mr. Taylor's plan was employed consisted in the friction resorted to, and cases were detailed in which soap suds, and even sand, had been used with good effect. One speaker had employed Mr. Taylor's plan with much benefit, but he had not neglected the ordinary indications of treatment in the instances in which he had resorted to it. It was generally considered that the application of water, while at the same time it was more cleanly, would be found more efficacious; and very severe comments were made by some of the speakers on the practice which seemed to obtain of late, of vaunting some peculiar plan of treatment as a panacea in the cure of disease, whilst the more legitimate modes of practice were neglected. The evils of such proceedings were incalculable, as they not only obstructed the course of legitimate inquiry, but tended to throw discredit generally on the practice of scientific medicine. The author in his reply declared that he had brought the subject before the society in order to give his plan of treatment publicity, and to induce others to give it a trial, and decide upon its effects by their own experience. Far from bringing it forward as a panacea, he begged to say that he never neglected the mode of treatment by medicines which was indicated by the symptoms; but in cooling the skin, in inducing perspiration and sleep, he had found frictions on the surface, with the ointment he had named, far superior in their effects to any other mode he had employed. The treatment, however, was only auxiliary to other remedies, and as such he begged to recommend it to the notice of the profession."—*Dublin Med. Press.*

On a Peculiar Condition of the Lungs resulting out of Congenital Syphilis. (*Academy of Medicine, Paris.*)—M. Depaul read an essay, in which he reviewed the entire subject of the transmission of syphilis to the fœtus in utero, by which he sought to prove that, the mother being incontestably healthy, and syphilis having been transmitted only from the father at the moment of fecundation, the embryo alone being affected has infected the mother during its stay in the uterus.

The author in the next place addressed himself to the consideration of the different manifestations of congenital syphilis—viz., the death of the fœtus at an early period, and its subsequent expulsion; the numerous forms of skin disease seen on infected fœtuses; diseases of the bones; peritonitis; disease of the liver; and certain forms of disease of the thymus body, pointed out by M. Dubois.

M. Depaul then arrived at the lesion of the lungs, which formed the principal subject of his memoir. The author stated that his early researches had been published by him in the year 1837, in the Transactions of the Anatomical Society. Since that period numerous facts of the kind had come under his notice: three of these were related in detail to the Academy. In all these, syphilis had existed in the father, or mother, or both. The pathological changes which were presented were sometimes simple induration, consisting of infil-

trated pus, sometimes as topical accumulations of pus. These pulmonary lesions rarely existed alone: usually there were also traces of syphilitic disease on the skin. This disease of the lungs, M. Depaul stated, is rarely amenable to treatment: hence he enforced the imperative necessity of submitting to a mercurial course the pregnant female suffering at the same time from syphilis.—*Med. Gaz.*

Observations on the Pathology of those affections of the Ear which produce disease in the Brain. By Joseph Toynbee, F. R. S. —In this communication made to the Royal Medical and Chirurgical Society, the author has a two-fold object: the first is to point out the nature of the several affections of the ear which produce disease in the brain; the second to show that each of the cavities of the ear has its particular division of the encephalon, to which it communicates disease. Thus, that—

1. Affections of the external meatus and mastoid cells produce disease in the lateral sinus and cerebellum.

2. Affections of the tympanic cavity produce disease in the cerebrum.

3. Affections of the vestibule and cochlea produce disease in the medulla oblongata.

1. In speaking of the external meatus, its intimate relations with the lateral sinus and cerebellum are pointed out; the affection most frequently producing disease in these parts is shown to be catarrhal inflammation of its dermoid layer, one of the numerous diseases which have hitherto been classed together under the term otorrhœa. This affection of the external meatus is fully described; and it is shown that it is found to endure during many years, without the presence of pain, or any other symptom calculated to apprise the surgeon of the presence of a formidable disease, while the bone may be becoming slowly carious, and portions of the dura mater and cerebellum disorganized.

In the second division of the paper, the tympanic cavity is described to be the part of the ear from which disease is more frequently propagated to the brain. This circumstance is accounted for, firstly, by the great liability of the mucous membrane of the tympanum to undergo pathological changes; and, secondly, by the existence of very intimate relations between this membrane and the dura mater. The affection of the tympanum which most frequently produces disease in the cerebrum is chronic catarrhal inflammation of the mucous membrane, an affection thus far only known as an otorrhea. The four changes in the dura mater and cerebrum produced by the affections of the tympanum are—

1. Inflammation of the dura mater, and its separation from the surface of the petrous bone by serum.

2. Ulceration of the dura mater, and its complete detachment from the petrous bone.

3. An abscess in the substance of the cerebrum.

4. Undefined suppuration of the substance of the cerebrum.

From a careful examination of cases, it appears that chronic catarrhal inflammation of the mucous membrane of the tympanum may exist as many as twenty or more years, without the production of any disease beyond it, or at least without the existence of symptoms by means of which the presence of such disease can be diagnosed; nevertheless, in the great majority of cases, vital structures become sensibly affected in a much shorter period.

The third section of the paper is devoted to the consideration of the labyrinth, and it is shown that purulent matter in the vestibule or cochlea, sometimes causes disease of the auditory nerve, which is transmitted to the medulla oblongata, producing suppurative inflammation of the meninges, and death, without the presence of any caries of the bone.

In the course of this paper, the author shows the necessity of abolishing the use of the term otorrhea, and of using in its place the names of the several diseases, eight in number, of which a discharge from the ear is one of the symptoms. In conclusion, the facts which he is desirous of impressing upon the minds of medical men are, that the bone, dura mater, and substance of the brain may be slowly undergoing disorganization, without the presence of any other symptoms calculated to reveal to the medical man the existence of formidable disease, than the presence of a discharge from the external auditory meatus; and that consequently no person suffering from catarrhal inflammation of the dermoid layer of the meatus, the membrana tympani, or of the mucous membrane of the tympanum, can be assured that disease is not being prolonged to the temporal bone, the brain, and its membranes; and that an ordinary exciting cause, as an attack of fever or influenza, a blow on the head, &c., may not induce the appearance of acute symptoms, which, as a general rule, are speedily fatal. Appended to the paper are tables, giving the particulars of sixty-five cases of disease extending from the ear to the brain, in which tables the duration of the chronic and acute symptoms, and the post-mortem appearances, are concisely detailed. —*Dublin Med. Press.*

SURGERY.

On a new method of treating certain cases of Epiphora. By William Bowman, F. R. S.—In this paper, read before the Royal Medical and Chirurgical Society, the author describes a new mode of treatment of those cases of epiphora which depend on a displacement of the puncta lachrymalia out of the course of the tears, or on an obstruction of the canaliculi between the punctum and caruncle, the inner extremity of the canals, together with the lachrymal sac and nasal duct, remaining healthy. The author describes the exact nature of these cases, and relates examples. The treatment which he has devised consists in slitting up the canal from the punctum on the conjunctival aspect, so as to carry backwards the orifice at which the tears are received on to the mucous membrane near the caruncle; and he finds that the tears are in fact taken up by the remaining

portion of the canal, while the end towards the punctum is converted into a groove. For the cases of obstruction from injury or other cause, he suggests a modification of this operation, by which the canal between the obstruction and the sac may be slit up for some way, so as to receive the tears at a new opening. The cases to which these new operations are applicable. have been for the most part abandoned by surgeons as incurable.—*Dublin Med. Press.*

Case of Popliteal Aneurism treated by Compression; with Remarks, and a list of the cases treated in Dublin. By O'B. Bellingham, M.D., F.R.C.S.E. Before the Royal Medical and Chirurgical Society at its meeting of June 10, 1851, the following case was reported. We copy from the Lond. Med. Gaz.—The subject of this case was a laborer, aged forty-two, who was admitted into St. Vincent's Hospital, under Mr. Bellingham's care, in November, 1850. The aneurism, which was of large size, was seated on the right side, had a strong heaving impulse, and a short harsh bruit was heard on auscultation over it. The treatment was commenced by placing the patient upon a very restricted diet, especially as regards fluids (six ounces only being allowed in the day, with eight ounces of solid food), confining him strictly to the horizontal posture, with a dose of purgative medicine each night. Under this treatment, continued for some days, the pulse, from being hard and incompressible, became soft, small, and slow.

Compression was commenced Dec. 4th, at 11 o'clock A.M., by means of two instruments; one upon the artery where it crosses the ramus of the pubis, the other at the lower third of the thigh. At 8½ o'clock P. M. the outlines of the aneurismal sac were more distinct, the patient's skin was cool, and he did not complain of pain. He remained awake during the night, and kept up the compression himself, the points upon which the pad of the instrument should rest having been marked with ink. Next morning, between 9 an 10 o'clock, on unscrewing the instrument, the pulsation of the aneurism was found to have ceased; the tumor was hard, solid, and circumscribed, and an enlarged collateral vessel was felt over the centre of the popliteal region. Moderate pressure was continued for some days, the patient was kept in bed, and the diet was gradually improved. The tumor diminished in size; and when the patient returned home, the limb was as strong as the other, and his general health perfectly good.

Some remarks upon the treatment of aneurism by compression follow, in which the author contrasts the results of compression and the ligature, and points to the advantages likely to ensue from combining constitutional with local treatment.

In a table appended to the paper, the author has given a list of all the cases of external aneurism treated by compression in Dublin during the last seven years, in which the seat of the disease is mentioned, the hospital or other locality where the treatment was con-

ducted, the surgeon's name who had the management of the case, and the results are stated. Of these, it appears that twenty-six were cases of popliteal aneurism, twenty-one of which were cured; six were cases of femoral aneurism, of which five were cured, the sixth having been a form of traumatic aneurism, in which amputation of the limb was the only resource; three were cases of brachial aneurism, of which two were cured; in the other, a high bifurcation of the brachial artery existed, and two vessels required to be tied. One was a case of radial aneurism, which was cured by compression.

Of the remaining five cases of popliteal aneurism, amputation of the limb was performed in one, the patient recovering; in a second, the ligature was used with success; in a third, the patient was obliged to return to his employment before the cure of the disease; the aneurism diminished in size, and the patient continued to work for above three years afterwards, when symptoms of aortal aneurism supervened, under which he sank. In a fourth, the patient died of pulmonary disease; and the fifth patient, who was of a broken-down constitution, died of erysipelas.

Cases of Nævus by Ligature upon a new Plan. By Mr. Erichsen, University College Hospital.

Case 1.—*Nævus of the Anterior Fontanelle.*—A child, six months old, strong and healthy, was admitted, under the care of Mr. Erichsen, Nov. 1850, with a nævus on the anterior fontanelle. The tumor is almost as large as a pigeon's egg; it occupies the whole of the fontanelle, extending over the osseous boundaries of this space on the left side. The heaving of the brain can be distinctly felt underneath it; there is no pulsation in the tumor, but several large veins are seen running from it on each side. The mother states that she noticed the discoloration of the skin shortly after birth; it increased rapidly since that period, and almost visibly during the last fortnight.

Mr. Erichsen resolved to use the ligature, seeing the size and prominence of the growth; but the difficulty in the application of this means consisted in passing the threads across the base of the tumor without wounding the membranes of the brain, which lay in immediate contact with it. This difficulty Mr. Erichsen overcame by using a blunt-eyed probe to convey the threads, instead of the common nævus needle. A puncture was therefore made about an eighth of an inch above the tumor, and an eyed probe, conveying the whipcord, was pushed across the base of the mass. Mr. Erichsen then cut down upon its point when it projected below the tumor, and then drew it across; the transverse threads having been carried through in a similar manner; the knots were tied in the usual way, and the mass firmly and effectually strangulated; the child, having been under the influence of chloroform, suffered no pain. The threads and sloughing mass separated in three days, leaving a healthy granulating surface, which speedily cicatrized.

Case 2.—A heavy child, ten weeks old, was sent to Mr. Erichsen on May 28th, with a nævus situated, like the last mentioned, in the anterior fontanelle. It was about as large as a walnut and was growing rapidly. Mr. Erichsen operated in this, as in the former case, by carrying the threads across the tumor with a blunt-eyed probe through punctures in the healthy neighboring integument. The case did perfectly well.

Case 3.—On the same day in which Mr. Erichsen operated in Case 1, we saw him remove, by the double whipcord ligature, an ulcerated and bleeding nævus, as large as half an orange, from the back of an infant eleven weeks old. The child, having been rendered insensible by chloroform, bore the operation (an extremely severe one for so tender an age) remarkably well, making a perfect recovery without any bad symptom.

Case 4.—A child, two years old, was admitted on the 23d of October, 1850, under the care of Mr. Erichsen, having a nævus on the right side of the forehead, about two inches long, three-fourths of an inch broad, and slightly elevated above the skin. Various but unsuccessful attempts having previously been made to destroy it with caustic, Mr. Erichsen proceeded to use the ligature, which he did in the following manner with complete success:—A long triangular needle is threaded on the middle of a whipcord about three yards in length; one-half of this is stained black with ink, the other half is left uncolored. The needle is now entered through a fold of the sound skin, about a quarter of an inch from one end of the tumor, and transversely to the axis of the same. It is then carried through, until a double tail, nine inches in length, is left hanging from the point at which it entered; it is next carried across the base of the tumor, entering and passing out beyond its lateral limits, so as to leave a series of double loops, at least nine inches in length, on each side. Every one of these loops should be made about three-quarters of an inch apart, including that space of the tumor, and the last loop should be brought out through a fold of healthy integuments beyond the tumor. In this way we have a series of double loops, one white and the other black, on each side. All the *white* loops should now be cut upon one side, and the *black* loops on the other, leaving hanging ends of thread of corresponding colors.

The tumor may now be strangulated by drawing down and knotting firmly each pair of white threads on one side, and each pair of black ones on the other. In this way the tumor is divided into segments, each of which is strangulated by a noose and a knot; by *black* nooses and *white* knots on one side, by *white* nooses and *black* knots on the other.

Mr. Erichsen thinks that this mode of applying the ligature will be found of service in all those cases of elongated flat nævi, in which, from the shape of the tumor, it is not possible to effect the strangulation by the ligature as ordinarily used, without enclosing an undue

quantity of integument, and thus producing a larger cicatrix than is necessary for the eradication of the disease. The ordinary double ligature, or the quadruple thread, as used and figured by the late Mr. Liston, always includes a circular mass, and hence it is not applicable to those growths that are much elongated or irregular in shape. —*Lancet.*

MIDWIFERY AND DISEASES OF FEMALES.

Extravasation of Blood behind the Uterus, (Retro-Uterine Hæmatocele.) (Surgical Society of Paris.)—M. Monod presented a pathological specimen exhibiting an example of this extravasation. The patient had complained of extreme pain in the pelvic region. M. Monod had at first thought that the case had been one of retroversion of the uterus; but on closer examination he discovered, behind the uterus, a voluminous tumor presenting fluctuation. A puncture was made, and gave exit to blood. The puncture was repeated, but the inflammation was not arrested, and the patient died. On the examination of the body a large quantity of blood was found collected behind the uterus.

M. Nelaton stated that he had several times observed these cases, and had drawn attention to them, under the name of retro-uterine hæmatoceles: the seat of the disease is behind the uterus, extending from the insertion of the vagina into the neck of the uterus upwards, without limit; in some cases filling both iliac fossæ, and reaching to the umbilicus. These tumors are only met with in menstruating women, and under various states of health; most usually where menstruation is difficult, and attended with pain. In one case it appeared upon the sudden suppression of the catamenia. Frequently these patients suffer also from hemorrhage by the vagina. The course of the disease had been noted by M. Nelaton in seven cases. In one, a simple puncture was followed by complete cure. In the second a cure also followed after several serious accidents. In the third, which M. Malgaigne had mistaken for a case of fibrous tumor, extensive incisions were made in the uterus, and the case ended fatally. The fourth and fifth were cured by incisions. In the sixth, the blood was discharged by the rectum, and the patient recovered. In the last instance, complete absorption of the blood had taken place. M. Nelaton observed that it was not possible to say whether the extravasation was within or external to the peritoneum. —*Med. Gaz.*

Case of Abortion in which Transfusion was required and successfully resorted to. By G. Masfen, Esq., House Surgeon to the Staffordshire Infirmary.—"On the 30th of July, 1848, at 1 P. M., I was called in to attend Mrs. B——, a lady of particularly delicate appearance, in her thirty-eighth year. It appears that on the evening of the 29th she had perceived some slight sanguineous discharge from the vagina, and had consulted my father, to whom she described herelf as being four months advanced in her tenth pregnancy, but

thought that the child had not grown for the last month or two. He ordered a mixture containing diluted sulphuric acid with Battley's sedative; but the discharge continued to increase until about seven o'clock this morning, when it became quite alarming. Plugging and injections of oak-bark were tried, but with no effect, and a dose of ergot was administered, which produced a severe pain, and the expulsion of a two-months' fœtus; but the hæmorrhage continued to increase till 1 P. M., when I first saw her.

I found her excessively weak from loss of blood; not the slightest pulse was to be felt at the wrist; and she became at last insensible. The stomach rejected every thing, and though the hæmorrhage had in a great measure stopped, there was every symptom of sinking and speedy dissolution.

About three o'clock, it being the opinion of every one present that it was the only possible means of saving her life, the operation of transfusion was decided upon, which I performed in the presence of Dr. Knight and my father. I immersed a four-ounce brass syringe in water at the temperature of 110 deg. Fahr., and drew a full stream of blood into it from the arm of a stout buxom-looking servant maid. This I injected into a vein on the left arm, taking every precaution to prevent the admission of any air-bubbles. As the operation was going on, consciousness appeared to be somewhat roused, and the pulse became slightly perceptible at the other arm, but in the course of half an hour the pulse had again disappeared, and she remained still unconscious. I then a second time injected three ounces of blood into the right arm (the veins were so small and empty that there was difficulty in finding the same opening twice); this was again attended with a return of pulse and sensibility, which, however, gradually disappeared as before. After an interval of nearly an hour, I injected a third three ounces of blood, which produced more permanent good effects; the pulse gradually rose as the injection went on, color made its appearance in her face, and she inquired if we had been bleeding her. During the evening she complained much of thirst, and she had occasionally a teaspoonful of wine and water.—8 P. M. The pulse was slightly perceptible, but was not to be counted; she attempted to take a cup of tea, but it was immediately rejected, as was also even a teaspoonful of water, and she remained all night awake and thirsty, but afraid to drink even a little water.

31st, 6 A. M. The pulse was 150, and very much increased in strength; the tongue dark brown, hard, and dry. Ordered three drops of creosote in the form of a pill. She vomited almost immediately after taking it, but did not throw up the pill, which from that time appeared to allay the sickness. She then took a tablespoonful of brandy mixture every hour. In the evening she still complained of thirst, and was ordered the following mixture:—Sesquicarbonate of soda, two and a half drachms; sesquicarbonate of ammonia, half a drachm; compound tincture of cardamoms, two drachms; oil of lemon, six drops; distilled water six ounces. Two

tablespoonsful to be taken every three or four hours in a state of effervescence, with twelve grains of citric acid. There was a great extravasation of blood for six or eight inches above and below the elbow in both arms, probably the effect of the injection. Ordered warm-water dressing.

August 1st and 2d. She continued gradually improving in appearance; her pulse was slower, and she was better able to take slight nourishment. The arms were becoming more ecchymosed, and she complained of great pain in them. The warm-water dressing was continued.

3d. Her health is gradually improving, and she is taking no medicine; complains of great pain in the right arm, which was much inflamed, and very hard just below the elbow, and seemed likely to suppurate. Ordered castor oil and the water-dressing.

4th. The arms rather better; the swelling abated.

5th. Continues to improve, both in health and as regards her arms. Ordered tincture of sesquichloride of iron, one drachm; infusion of quassia and camphor mixture, of each three ounces; to take two tablespoonsful three times a day.

14th. The arms have been gradually improving, and the discoloration is nearly gone, but they remain very weak, and she is not able to write.

28th. She has now quite recovered the use of her arms, and is in general good health. From this time I discontinued attendance.

In June, 1849, she miscarried again, but otherwise she has remained perfectly well up to the present time."—*Lancet.*

Case of Apoplexy terminating fatally, in which the Cæsarean Operation was performed with a favorable result to the Child. By E. M. Hodder, M. D., etc.—"Mrs. D., aged 36, stout muscular figure, and plethoric habit, in the commencement of the ninth month of her sixth pregnancy, called and requested my attendance in her approaching accouchement, which she expected to take place at the end of the month (June). She had always enjoyed good health, her previous labors having been easy, and not followed by any unfavorable circumstance. Ten days before the period of her expected confinement (the 19th) I was hastily summoned to see her, as she had suddenly fallen into a fit. I reached the house at 9 P. M., about ten minutes after the seizure, and found her laboring under all the well-marked symptoms of apoplexy. Her breathing was labored and stertorous, her eyes prominent and injected, the pupils widely dilated and insensible, her features swollen, the pulse slow and oppressed; she was perfectly unconscious, and a little frothy mucus, tinged with blood, issued from her mouth.

Losing as little time as possible in useless inquiries, as to whether she had complained of indisposition prior to the attack, being assured in reply that she had not, but that she had fallen as if shot,—I made

the necessary arrangements for bleeding, and to my astonishment I was told by her husband and sister, that on no consideration whatever would they allow blood to be taken from her, either by bleeding, cupping, or leeching, alleging as their only reason for refusing, that they had always heard that taking blood from a person after the "*sun had gone down*" was invariably fatal. In vain were my remonstrances to overcome their superstition; the only answer I received was that I might call as early, and take as much blood from her in the morning as I pleased, but as for bleeding then, it was out of the question. I therefore took my leave, after having ordered the head to be shaved, and pounded ice to be applied, with large and repeated doses of calomel and croton oil to be given until the bowels should be freely acted upon; the head and shoulders to be raised, and the lower extremities to be kept warm, and mustard poultices to be applied to them.

20th, 8 A. M. As might have been expected, I found my patient the following morning in a state of profound coma, her breathing slow and tertorous, with perfect loss of sensation and voluntary motion. Hopeless as her condition was, I thought it my duty to try the effect of a copious bleeding; accordingly, I took about twenty-five ounces of blood from her, with little or no perceptible result. The bowels had not been acted upon; the croton oil was continued in larger doses, enemata of turpentine ordered, a large blister applied between the shoulders, the catheter passed, and the opportunity taken to ascertain the state of the os uteri, which would barely admit the tip of the finger, and did not feel inclined to yield. At this time the motions of the child were vigorous and strong, so much so as to be seen by the persons around the bed.

Noon. She remained much in the same state as in the morning. 8 P. M. She was evidently sinking, pulse small and weak, surface of the body and extremities cold, bronchial tubes loaded with bloody and frothy mucus, sphincter muscles beginning to relax, the os uteri in the same condition as in the morning, the action of the fœtus strong, yet not so much so as in the morning. As it was evident that the mother must die, it appeared to me that the life of the child might possibly be saved by the Cæsarean section; it was therefore proposed to the husband, who immediately gave his consent, and requested that everything might be done to preserve his offspring. Accordingly the friends were told to have everything in readiness, and to send for me as soon as they perceived the approach of death.

At 11 P. M., I was sent for, as they thought she could not survive many minutes; and just as my medical friend and myself reached the house, we were met by the husband, who told us that she had that moment breathed her last. We were also told that the movements of the child had been felt a moment or two before. No more time was lost than was necessary to assure ourselves that her dissolution was complete; and being satisfied that the vital spark had fled, I commenced the operation in the usual manner, beginning

the incision about two inches above the pubes, and continuing it to the same distance above the umbilicus. The uterus being freely exposed, an incision to nearly the same extent was made through its walls, the membranes ruptured, and a full-grown female child was easily extracted by the legs, they being the parts most readily taken hold of.

A ligature was immediately placed on the cord, the child separated from the placenta, and handed to my friend. It showed no signs of life, was pale, and beautifully clean. It was immediately placed in the warm bath which had been prepared, and artificial respiration, by means of the tracheal tube, commenced; the chest and upper portion of the spinal column being alternately rubbed with a stimulating liniment.

At first our endeavors to resuscitate the child appeared unavailing, but in about seven or eight minutes from the time we began the inflation of its chest, an occasional sob took place, and in a few minutes more, the breathing and circulation were fairly established, the child ultimately recovering completely.

The placenta was removed from the uterus, and the external incision brought together by a couple of sutures, the intestines not protruding, or in any way annoying us during the operation. Permission was then obtained to examine the head.

Post-mortem twelve hours after death.—On removing the calvarium, the membranes of the brain were found most highly congested, the glandulæ pacchioni were unusually large, and the little pits on either side of the longitudinal sinus so deep, as to lead to the belief (at first sight) that the bones were diseased. On raising the brain, a very considerable coagulum of blood was observed, occupying the whole of the base of the scull, together with a small quantity of high-colored and bloody serum. The vessel from which the extravasation had taken place could not be detected. Both the lateral ventricles were distended with bloody serum, the color of arterial blood, but no blood was effused into the substance of the brain, which in other respects appeared firm and healthy. The uterus was found to have contracted as firmly and equally as it would have done after a natural labor; although at the time that the sutures were put into the abdominal parietes, it had rather the appearance of a collapsed state than that of a firm contraction. The other abdominal organs were healthy. The chest was not examined.

Remarks.—The principal point of interest in this case was the preservation of the child's life, under circumstances the most unfavorable. Numerous cases are recorded, where women have died suddenly, or been killed by accidents, when in the last month of their pregnancy, and the children saved by immediate recourse being had to the Cæsarean section, but I have not met with any recorded instance where the mother had been in a state of profound coma for twenty-six or twenty-seven hours previous to her death, and where, in fact, she had been dead to every external impression, the animal functions alone being maintained chiefly through the medium of the

nerves of organic life. Nothing can more clearly prove the independent existence of the child from that of the mother, except so far as the placental circulation is concerned. In a case mentioned by Dr. Blundell, where a woman, in the last month of her pregnancy, was run over, and died a few minutes afterwards, the child was removed by the Cæsarean section thirteen minutes after the mother breathed her last, and in fifteen minutes from the mother's death, artificial respiration was commenced. Dr. B. continues: "During fifteen minutes longer I continued it, ultimately resuscitating the child completely."

This case shows, that we must not be deterred from making an attempt to save the child, even fifteen or twenty minutes after the death of the mother; and, on this continent, where steamboat explosions and railway accidents are of constant occurrence, it is to be hoped, that bearing these facts in mind, the lives of some innocent beings may be saved by a timely recourse to this operation. But here, let me caution the younger and less experienced members of our profession (whose zeal and energy may occasionally run away with their better judgment) to convince themselves thoroughly of the death of the unfortunate mother, ere they commence the attempt to save the child; for, to perform this formidable operation when the woman is dying, with a chance only of saving the child, would be barbarous in the extreme, and justly deserve the eloquent reproval of my friend and former preceptor, Dr. Blundell:—"Who that has a heart of flesh in his bosom could coolly sit down in a real case to argue for the advantage to be derived to the fœtus from the performance of Cæsarean incisions before the maternal life is totally and beyond all doubt extinct? Who that has a heart of flesh in his bosom could have firmness sufficient to perform his operations under such circumstances? Who could look on the dying eyes of his patient without suffering the knife to drop from his hand? Who would like himself to be disturbed at such a moment? As long as men are surgeons, surely surgeons may continue to be men."—*Upper Canada Journal.*

Case of Birth after the Death of the Mother. By Dr. Schneider. —"Dr. Schneider relates, that being summoned in haste to a woman in labor, he found her dead on his arrival. On placing the hand on the yet warm abdomen, he felt the uterus contracted and sunk in the pelvis. By an examination per vaginam, a foot was detected, and by rapidly completing the delivery, he had the satisfaction of bringing into the world an apparently still-born child, which, however, soon revived."—*Monthly Jour. of Med., July.*

PART FOURTH.

COMMUNICATIONS

AND

AMERICAN MEDICAL RETROSPECT.

COMMUNICATIONS.

Obituary notice of LEROY RAVENHILL, M. D., *late Assistant Physician to Bellevue Hospital, prepared at the request of the Medical Board of the Hospital.*—By C. R. GILMAN, M. D., *one of the attending Physicians.*

AMONG the various duties which the advance of life imposes upon us, few are more suggestive of melancholy reflections than that of commemorating the death of the young, especially when the garland is to be woven for those whose future has seemed fullest of bright hopes, and to whom we have looked as to those who would worthily fill our places when death should make them vacant, and do for our beloved profession, for science and for humanity, all that we may have desired and labored, and yet, too often, failed to do.

We have arrived at the period when hopes of personal success have lost their brightness;—we look back upon the past, and see how little of what we intended to do, and perhaps might and ought to have done, is accomplished. We look forward upon the short space within which our earthly future is comprehended, and feel how little can be done within so brief a period. Where then is our consolation? Surely the hope that those who are entering upon the race of life, and whom we perhaps have helped to train for the course, will run that race with honor, and win the prize which we may no longer hope

for. No wonder then that when they are stricken down at the barrier, or fall when only a few steps in the race are taken, our sorrow should partake of hopelessness—our sadness of desolation.

Such are the feelings with which I enter upon the performance duly imposed upon me by a resolution of the Medical Board of Bellevue Hospital, requesting me to prepare an obituary notice of Dr. Leroy Ravenhill, late one of the House Physicians of Bellevue Hospital.

It seems but yesterday that he applied to the Faculty of the College of Physicians and Surgeons, for encouragement in entering upon his medical studies. I see now the bright, happy smile with which he received our assurance that the institution would do all it could do for the first scholar in Columbia College. He entered upon his studies and we watched his progress, saw the readiness with which his well-trained intellect mastered all subjects, overcame all difficulties. We saw it with hopes—of which it avails not now to speak.

Leroy Ravenhill was born in Newry, in Ireland, in 1825. He early manifested an uncommon thirst for knowledge, and this, with his remarkable docility and sweetness of temper, endeared him in no ordinary degree to all who had the pleasure of assisting in his education. At the age of seven he was sent to the classical school of the Reverend Prince Crawford, Dublin. Here he remained about three years, when on the removal of his family to Canada, he joined the classical school attached to the College of Toronto, C. W. As a remarkable proof of the maturity of his character, it may be noted that while here he was appointed a teacher in the Sunday School, though only ten years old.

In 1836, he came to New-York, and continued his classical studies till 1841, when he entered Columbia College. From the first he took high rank in his class, and in 1845, graduated with the first honor. His desire for many years had been to study divinity, with a view to missionary labor; but an attack of chronic bronchitis seemed to render this imprudent; and after mature deliberation, it was, with great reluctance, abandoned.—A fondness for the natural sciences, which had always existed in his mind, directed his thoughts towards the study of medicine, and in 1847, he entered the office of Professor Whittaker, and at the ensuing session attended lectures at the College of Physicians and Surgeons. In pursuing his medical studies, his course was worthy of all praise; nothing was neglected, nothing passed over slightingly. Every branch received its appropriate amount of attention, and when he came before the Faculty for his final

examination, it was difficult to say on which of the departments he was best prepared. He left the institution, bearing with him the regard and respect of all his teachers, who looked upon him as one of those who were most certain to sustain the honor and augment the reputation of the school. In May, 1850, he was appointed one of the Assistant Physicians of Bellevue Hospital. Here a new field of labor opened before him, presenting at once new duties to perform and new opportunities of acquiring useful knowledge. To say that the duties were faithfully performed, that the opportunities were zealously improved, is to tell but half the truth. His humane and compassionate nature found its natural and delightful exercise in attentions to the sick poor. He was never weary in ministering to their wants, cheering their sorrows, and reviving their hopes. To them he was in very deed, what the physician always should be: *God's minister for good.*

Nor did he neglect, in his devotion to others, the great duty of self-improvement. Every hour that could be spared from the service of the sick was sacredly devoted to professional study. Nor did he, though necessarily much engrossed in the study of practical medicine, neglect medical science. I well remember the pleasure with which he spoke to me of having just received a microscope from Paris—the eager hope with which he looked forward to advantages in the study of physiolcgy and pathology to be derived from it, and the honest pride with which he received an invitation to attend the meetings of our Microscopic Society and associate himself with his former teachers, on a footing of equality. He continued at Bellevue, gaining every day more and more of the confidence of the attending physicians and the affection of his associates. Here, too, he had a remarkable opportunity of showing that he was fully prepared to meet and overcome those sudden difficulties which do not unfrequently perplex and even foil the practitioner. The case is so interesting in itself, and its details so creditable to him, that, though it has appeared in the New York Register, I will here present it in a condensed form:

Œdema Glottidis successfully Treated by Scarification.—James Connor, aet. 45. native of Ireland, and laborer by occupation, was admitted under Dr. Clarke, March 14, 1851. Habits temperate and previous health good. His illness commenced a week previous to admission, with debility, headache, loss of appetite, and some obscure wandering pains, but no well-marked rigors.

On admission, his symptoms were those of a mild case of typhus fever, from which he soon began to recover, and continued to improve until the 24th, when he complained of soreness of the throat. On

examination, no unnatural redness of the fauces was discovered. Being the same on the following day, a mild astringent gargle was used, and fomentations externally. He continued much in the same condition the two succeeding days, a turpentine epithema having in the mean time been applied to the neck. When seen by the attendant in the afternoon of the 28th, the dysphagia had increased, and there was a diffused tumefaction of the neck on either side, with tenderness on pressure. His voice, which had been slightly hoarse for a day or two previous, was now quite muffled. Apprehensive of œdema glottidis, particular inquiry was made in reference to his respiration. It was found to be but slightly accelerated, and he denied having any difficulty in breathing, either in inspiration or expiration. The turpentine was reapplied. In the evening of the same day, he was seen by the orderly of the ward suddenly to rise up in bed, and then fall back, apparently in great distress. Dr. Ravenhill, the house physician, was immediately called. He found him in an alarming condition; his limbs and body extended, head thrown back, and face and lips purple and covered with a cold sweat. Instead of replying to any question, he answered by signs, and kept putting his hand to the larynx as the seat of distress. Inspiration was exceedingly laborious; was performed with a slight croupal sound, and by manifest convulsive action of the respiratory muscles. Expiration was comparatively easy. The pulse had not varied since the last visit.

The finger being introduced into the mouth was carried back to the epiglottis, which felt natural at its apex, but somewhat tumefied at the base. Behind this tumefied part, two tense smooth swellings were found, which completely obstructed the area of the glottidal space, and thus prevented admission of air They could be separated a little, which allowed the patient to inspire with comparative ease. After some twenty inspirations were taken in this way, a hernia knife was procured, and directed carefully by the finger until its cutting portion had reached the left tumefaction, which was incised, and then the opposite swelling. The incisions were followed by immediate coughing with expectoration of blood and frothy mucus, which lasted about ten or fifteen minutes. The patient then began to breath naturally and to speak. The articulation was hoarse and gruff, but distinct. He was asleep within half an hour after the operation, and when seen about midnight, was still sleeping and breathing freely.

29th, A. M. Patient feels refreshed after the night's rest; eyes somewhat suffused; face natural in color; breathing free; deglutition somewhat difficult; voice not natural, rather husky; tongue slightly furred in the centre; slight soreness experienced by pressing on the larynx; pulse 80. P. M. Symptoms the same as at the morning visit, except the voice, which seems more natural. The patient continued recovering without any relapse of the difficulty in the throat or other unpleasant symptoms.

On the 4th of March Dr. Ravenhill received the appointment of House Physician; this made, of course, a great addition to his duties

and his responsibilities. Both were greatly increased by the prevalence of typhus fever in the house. With ardent zeal, with unwearied patience, he devoted himself to these duties. At length, early in May, the attending physician, Dr. Robson, observed the signs of an approaching attack and warned Dr. Ravenhill of it, urging him at the same time to leave his post, if only for a few days. This timely warning was, most unhappily, neglected. Ravenhill knew the urgent necessity that bound him to his hospital duties, and day after day he continued to perform them. But the fell disease would not long be trifled with. On the 10th he was unable to leave his bed. The fever soon assumed a very grave character, and though for a few days it seemed to abate, yet it soon returned, and on the 24th he died.

This brief account of his last illness ought not to be concluded without a mention of the patient firmness with which he passed through the various phases of his disease; no fretful repinings, no vain apprehensions; all was calm without; and, and as we devoutly hope, peace within. Nor should we, while doing this imperfect justice to the dead, fail to appreciate the merits of the living. Dr. Ravenhill died not in the bosom of his family, and those who were closest bound to him by the ties of kindred had few opportunities of rendering to him those offices of kindness which make sickness tolerable. But the brotherhood of the profession failed him not; his associates, the assistant physicians and surgeons of Bellevue, vied with each other in devoted attentions; he had always, in one of them, a physician, a nurse, a friend, at his bed-side—not for a single hour, day or night, was the patient watch intermitted. Nor were his official superiors slow to give their aid. Drs. Robson and Foster attended him from the first, and as the case grew serious, they had the counsel of Drs. Manley and Parker—but all was in vain. Yet not in vain, for when distinguished members of our profession are found willing to leave more profitable and perhaps more urgent engagements, that they may devote their time to the service of a young brother; when those of his own age, with the terrible warning before them which his condition affords, hesitate not to brave for days and nights the contagion of typhus, though they save not life, their labor is not in vain; it elevates the moral tone, and they may confidently say, "the honor of the profession has lost nothing in our hands." Be this (as it is their just) their abundant reward.

Communication—New-York City Inspector's Report for 1851.

To the Editor of the New-York Journal of Medicine:—

Dear Sir,—I have just received the "Annual Report of the City Inspector of the number of deaths and interments in the city of New-York, during the year 1850."

It would perhaps be unbecoming in me, and it is not the purpose of this note, to review this report. There are, however, some statements relating to my own labors, which, in justice to myself and to parties interested, seem to require some notice. It is stated by the City Inspector on page 456 of his report,—"Before taking leave of the subject of nomenclature, I will append the system recommended by the State Commissioners on the sanitary survey of Massachusetts." And in another paragraph on the next page,—"The following nomenclature is recommended by the Commissions on the sanitary survey of Massachusetts." From these paragraphs it may be supposed that the list of names of diseases, as given on the pages immediately following, is the one recommended by the Commissioners. If, however, any one will take the trouble to refer to the fifteenth article of the appendix to their report, (pp. 389–393), and compare the two, he will perceive that they differ in very many important and essential particulars. Some names are omitted and others added; the names and order of arrangement of the classes; the names of diseases assigned to the several classes; and the qualifying terms used, are not the same as recommended by the Commissioners. A few specimens will illustrate the truth of this remark.

In the zymotic class the qualifying terms "true and spasmodic" are added to croup; erysipelas is omitted, and measles and scarlatina, emphatically diseases of this class, are transferred to diseases "of the brain and nervous system!" The diseases of uncertain seat are placed as the tenth instead of the second class. The Commissioners say in their report against abscess and cancer, "state where,"—this report says "of what part." It also adds "of what part and cause," as qualifying terms to dropsy, gout, bleeding, inflammation, malformation, mortification, scrofula, atrophy, debility, &c.!" "Kind" or "kind of" is also added to tetanus, asthma, consumption, hernia, worms. These terms are not used or recommended by the Commissioners, neither do they use "fistula" in two classes, nor "climacteric disease" in any case. These are some of the alterations which appear by comparing the two nomenclatures together.

If the City Inspector intended to refer to the Commissioners re-

port at all, it is much to be regretted that he did not copy their nomenclature, instead of making one, in many respects, essentially different, and presenting it as the one they recommend. I am not ambitious of being considered the author of the nomenclature he presents; and it would be unjust to deprive him of the merit of its authorship. It seems due to both to say, that the nomenclature, given on page 457 of his report, is not the one recommmended in the Report of the Sanitary Commissioners of Massachusetts.

THE AUTHOR OF THE SANITARY REPORT.

Boston, May 19, 1851.

Extracts from the Report of a Committee of the New-York Academy of Medicine, upon the comparative value of Milk formed from the slop of Distilleries and other Food.—[From the published volume of the transactions of the New-York Academy of Medicine, just issued, we extract the following—the bearings of which upon the public health need no arguments from us to enforce them. It will particularly claim the attention of city readers.—*Ed. N. Y. Jour. Med.*]

"In investigating this matter, your committee have not forgotten the importance of careful attention, accurate and repeated examinations, unswayed by any bias. The importance of such an investigation, of an article which constitutes so large a portion of the food of the inhabitants of this city, is evident to all. In 1842, it was estimated that the quantity of milk, daily used in the city of New-York, amounted to more than 15,000 gallons, at that time principally furnished from the neighborhood. With the growth of the city, the consumption of milk has undoubtedly increased. The various kinds of milk which are consumed in the city, may be divided into several classes, according to its origin.

1st. The grass-fed milk, brought from a distance by steam—as the Orange County milk, for example.

2d. That produced by feeding the cows entirely, or partially, with distillery slop—which is the refuse of the grain, left after distillation, mixed with water, with most or all of the spirituous ingredients extracted, brought hither by steam—as for example the Newburg.

3d. Grass-fed milk produced in the neighborhood of the city, as some of the Bloomingdale dairy milk.

4th. That produced partially by the administration of distillery slop in the neighborhood, as at Brooklyn, Wallabout, Bloomingdale, &c.

5th. That produced in the city, or its outskirts, solely by feeding on distillery slop—as at the distilleries on Long Island, Sixteenth and Forty-Second Streets in this city. * * * * *

Your committee have endeavored to take nothing for granted, but

have striven to verify by repeated observations, the truth or falsity of every statement, and endeavored to guard against any fraud. For this reason, every specimen of milk examined, has been personally obtained by the chairman of this committee, from the milkers themselves, and placed in the hands of the chemist. Any adulterations or additions have been made, therefore, by the producers themselves, and are not attributable to any of the retail venders. The distillery milk has been obtained from Johnson's Distillery, Sixteenth Street and Tenth Avenue. The Orange County milk was bought at the depôt, at the foot of Duane Street, without the knowledge of the proprietors of the object for which it was procured. and taken from the same can from which other customers were served. It, therefore, was not enriched with additional cream for the purpose. * * * *

The chemical examinations were intrusted to Mr. Lawrence Reid, whose skill as an analytical chemist is well known to the members of the Academy. He has devoted much time and attention to the investigation, proposing and using new tests of its virtues, some of which will be hereafter mentioned, and displaying that zeal in the cause of science, which strongly recommends him to the favorable consideration and thanks of the Academy.

For the microscopical investigations, the Academy is indebted to the practised eye and sound judgment of Dr. Alonzo Clark, Professor of Pathology in the College of Physicians and Surgeons, in this city. For his readiness in so materially assisting in this investigation, Dr. Clark will undoubtedly receive the acknowledgments of the Academy, as he has already the personal thanks of the committee.

The reports of these gentlemen now follow in full.

NEW YORK HOSPITAL, *Nov. 29th*, 1847.

SIR:—At the request of the committee of the Academy of Medicine on milk, I have made several analyses of distillery and other milks, and have the honor to report:

1st. That of the various samples furnished me, none of the common sophistications were present, such as starch or carbonate of lime, and that as far as chemical tests could enable me to determine, the samples were all genuine.

2d. That with the exception of the sample marked No. 6 of the analyses, they were all of a neutral character when received, No. 6 being acid.

3d. With regard to the assertion that distillery milk contains spirits, the milk has been tested on such a scale as to detect one fifty-thousandth part of spirits if present, and none could be found.

4th. With regard to distillery milk furnishing no butter, it is a mistake, as every sample, sixteen, gave butter on agitation in a bottle. The butter is whiter and in much smaller quantity than obtained from other milk, and this may be considered a good test of distillery milk, the scantiness of the butter. The butter also, in forming, associates itself with more curd and whey than that obtained from other milk. To examine milk for butter, a bottle containing a pint may be

filled two-thirds with milk, and well shaken for about one hour and a half, when the butter will separate.

5th. With regard to the relative proportions in which the ingredients exist. The nature of fermentation and distillation is to abstract from the grain all the fecula and sugar, the principles that are more particularly convertible into butter and sugar; leaving the nitrogenized compounds and also the caseine and earthy matter nearly untouched; hence the increased quantity of ashes and also of caseine, the nitrogenized compound in milk; while the sugar and butter are below the usual standard.

6th. To test if this milk was decomposed by heat in the same manner and time as other milk, a portion was placed in a glass vessel, and retained at the temperature of 98 degrees of heat for six hours before coagulation took place, while a portion of Orange County milk, treated in the same manner, coagulated in one hour.

Whether this experiment is to be considered as having a bearing on the assimilation of the milk as food in the human stomach, I prefer leaving to the committee to decide.

The samples are marked from one to six. No. 1 is a European analysis of milk, by M. Haidlen, the most recent I could find. No. 2 is Orange County milk, being an average of two samples. Nos. 3, 4, 5, 6, are distillery milk, about sixteen samples of which were examined.

Yours respectfully,

LAWRENCE REID,
Prof. of Chemistry to College of Pharmacy.

A. K. GARDNER, M. D.,
Chairman of Committee of the Academy of Medicine on Nuisances.

ANALYSES OF MILK.

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.
Water, - - -	873.00	860.00	869.10	876.00	888.00	898.00
Butter, - -	30.00	35.00	15.00	14.00	13.00	10.00
Caseine, - - -	48.20	45.00	62.00	59.00	50.00	45.00
Sugar of Milk, -	43.90	53.00	44.00	42.00	41.00	40.00
Phosphate of Lime, -	2.31	3.35	4.20	4.00	3.20	2.80
" Magnesia,	.42	.76	1.84	1.56	1.41	1.20
" Iron,	.07	.09	.12	.11	.10	.07
Chloride of Potassium,	1.44	2.00	2.97	2.51	2.46	2.23
" Sodium,	.24	.36	.44	.42	.43	.40
Soda in combination with the Caseine,	.42	.50	.43	.40	.40	.30
	1000.	1000.	1000.	1000.	1000.	1000.

MICROSCOPIC EXAMINATION.

DEAR DOCTOR:—I have examined, with the aid of the microscope, the four specimens of milk you sent me. Four statements will comprise all that I observe in them worthy of remark:

1st. The milk-globules are less abundant in them than in specimens of good country milk, with which they have been compared.

2d. The globules, though very variable in size, are generally smaller than in good milk.

3d. In three of the specimens there was an unusual tendency to aggregation in the globules, and when once aggregated they adhered in groups, so that mere agitation would not separate them.

4th. In the last two specimens there was an unusual number of epithelial cells,* many of which were very markedly granular, and some highly colored—in a few of these the milk-globules were still imprisoned, and of very small size; showing that these secreting structures had been discharged from the lactiferous ducts of which they form the lining, before the complete elaboration of their contents.

Your familiarity with the subject to which these statements relate, will render any comment on my part unnecessary. I submit them, therefore, as the basis of any remark which your wider range of research may justify. Your ob't servant,

A. Clark.

New York, Nov. 27, 1847.
To Dr. Gardner.

SURGERY AND SURGICAL PATHOLOGY.

Case of Croup in which Tracheotomy was successfully employed. By Gurdon Buck, Jr., M. D.—Samuel B———, a lad eleven years of age, residing in Brooklyn, Long Island, was attacked in the month of May, 1849, with scarlet fever, in the treatment of which calomel was freely administered. Profuse salivation succeeded, and destructive sloughing which involved the left edge of the tongue, the gums and the alveolar sockets of the lower incisor teeth on the left side, and the under lip at the left angle of the mouth. Superficial abscesses also formed beneath the scalp and upon other parts of the body. At the expiration of about five weeks from the commencement of his illness, and while gradually recovering from the debilitated condition consequent upon mercurial cachexia, he was attacked with symptoms of croup, of which he was temporarily relieved by appropriate remedies. In a few days, however, the disease re-appeared with increased violence, and notwithstanding the judicious

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* "The cells covering the simple membranes that form the free surfaces of the body, whether external or internal, are all entitled to be regarded as *secreting* cells; since they separate from the blood various products which are not again to be returned to it." (Carpenter's "Manual of Physiology," p. 408.)

"From the researches of Mr. Goodsir, it appears that, in common with other glandular structures, the inner surface of the milk-follicles is covered with epithelial cells, which being seen to contain milk-globules, may be without doubt regarded as the real agents in the secreting process." (Carpenter's Physiology, Clymer's ed., 1847. p. 649—see also "Anat. and Path. Obs.," by John and Harry D. S. Goodsir, p. 24)

and skilful treatment employed, it advanced steadily towards a fatal termination. Under these circumstances, I first saw the patient on the 8th July, at 1 o'clock P. M., at the request of his attending and consulting physicians, and found his condition as follows.

He lay in a horizontal position with his head thrown backwards, and breathing with great effort, each inspiration being accompanied with a loud, hoarse, metallic sound. His countenance was anxious, his pupils dilated, and his eyes had a wild expression. The voice was reduced to a whisper. The skin was moist; the pulse, though frequent, was not irregular or intermittent, and still retained a good degree of force. The respiratory murmur was audible and clear over the entire posterior part of the chest. The patient's situation was evidently one of imminent danger, and inasmuch as the disease had steadily advanced with only temporary abatement, during the preceding forty-eight hours, in spite of efficient treatment, the only remaining resource that afforded a reasonable hope of relief was the operation of Tracheotomy, without which it was scarcely possible for him to survive many hours. The operation was therefore decided upon without delay, and performed as follows:

A folded sheet being passed round the body confining the arms to the sides, and the patient placed so as to expose the neck favorably to the light, a longitudinal incision two inches and a half in length was made over the median line by dividing perpendicularly a transverse fold of skin, pinched up between the thumb and finger of the operator and assistant. This incision extended over the lower half of the larynx and upper part of the trachea. The subjacent layers of aponeurosis were then successively divided, and the sterno-hyoid and thyroid muscles drawn to either side. The isthmus of the thyroid body being now brought into view was partly torn across at its upper edge, and partly pushed down till the three or four superior rings of the trachea were laid bare.

After delaying till all hæmorrhage had ceased, the opening into the trachea itself was effected as follows:—A transverse slit, one fourth of an inch in length, was made between the first and second cartilaginous rings; the lower edge of the slit was then seized with a clawed forceps and a triangular piece excised with scissors curved edgeways, the incisions commencing at either extremity of the slit and meeting below at the inferior edge of the fourth tracheal ring. At the instant of perforating the trachea the air rushed in with a hissing sound, and as soon as the opening was completed, respiration was promptly established through it, and in a short time became tranquil and easy. No embarrassment occurred from hæmorrhage into the trachea at the moment of opening it, the precaution having been taken to delay the opening until the flow of blood had ceased. The convulsive cough consequent upon establishing a new passage for the air to and from the lungs was of short duration.

The rapid transition from extreme distress and anxiety to a state of tranquil repose and comfort, was scarcely less gratifying to those who witnessed it than agreeable and welcome to the patient

himself. His countenance lost its wild and anxious expression, and became calm and natural. Directions were given to wipe away promptly the viscid secretion from the wound whenever coughing occurred. At 9 o'clock P. M., we found our patient had slept quietly most of the time since the operation, and his breathing had continued perfectly easy. Fearing lest the tracheal opening should become contracted by the swelling of the edges of the wound and the accumulation of the viscid secretion around its orifice, a full sized canula of the ordinary shape was introduced and secured in place by a tape tied round the neck.

July 9th. Patient had passed a quiet night. Respiration continued easy and other symptoms were favorable. Removed the tracheal tube, and after cleansing it of the tough viscid secretion lining the inner surface, replaced it as before.

11*th.* Progress still favorable. The rapid accumulation of the viscid secretion upon the inner surface of the tube rendered it necessary to cleanse it twice in twenty-four hours. On exploring the top of the larynx with the forefinger passed back into the fauces, the aryteno-epiglottic folds were felt to be very much swollen, soft, and pulpy. The epiglottis itself was normal. Applied a solution of nitrate of silver (℈i to ℥i), to the larynx by means of a curved whalebone probang.

12*th.* Increased the strength of the solution to one drachm to the ounce, and applied it daily. The continuance of the obstruction of the larynx without perceptible abatement showed conclusively what would have been the result of the disease if the operation had not been resorted to.

14*th.* Some diminution of the obstruction in the larynx seemed to have taken place. In closing momentarily the tracheal opening, patient was able to breathe once or twice through the natural passage, but not without great effort.

The application of the nitrate of silver was continued till the 30th, when it was suspended for three weeks, the tube in the meantime being changed twice in twenty-four hours.

August 20th. On resuming my attendance, which had been interrupted by sickness, patient was found to have improved very much in health and appearance, and to have gained flesh and strength. The condition of the larynx was as follows:

The tube being removed and the tracheal opening closed, a few words could be uttered in an audible tone, but not without considerable effort. Respiration could be carried on through the larynx only a very short time, and also required very great effort.

With the view of exercising the obstructed parts without removing the tube, a free opening was made at the bend of the tube through its convex side, which would allow the ascending column of air to pass up through the larynx in the act of expiration, and the reverse to take place in the act of inspiration, the outer orifice of the tube being closed.

With the tube thus arranged, and in situ, it was found that after inflating the lungs through the tube, a very considerable effort was

and skilful treatment employed, it advanced steadily towards a fatal termination. Under these circumstances, I first saw the patient on the 8th July, at 1 o'clock P. M., at the request of his attending and consulting physicians, and found his condition as follows.

He lay in a horizontal position with his head thrown backwards, and breathing with great effort, each inspiration being accompanied with a loud, hoarse, metallic sound. His countenance was anxious, his pupils dilated, and his eyes had a wild expression. The voice was reduced to a whisper. The skin was moist; the pulse, though frequent, was not irregular or intermittent, and still retained a good degree of force. The respiratory murmur was audible and clear over the entire posterior part of the chest. The patient's situation was evidently one of imminent danger, and inasmuch as the disease had steadily advanced with only temporary abatement, during the preceding forty-eight hours, in spite of efficient treatment, the only remaining resource that afforded a reasonable hope of relief was the operation of Tracheotomy, without which it was scarcely possible for him to survive many hours. The operation was therefore decided upon without delay, and performed as follows:

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14*th.* Some diminution of the obstruction in the larynx seemed to have taken place. In closing momentarily the tracheal opening, patient was able to breathe once or twice through the natural passage, but not without great effort.

The application of the nitrate of silver was continued till the 30th, when it was suspended for three weeks, the tube in the meantime being changed twice in twenty-four hours.

August 20th. On resuming my attendance, which had been interrupted by sickness, patient was found to have improved very much in health and appearance, and to have gained flesh and strength. The condition of the larynx was as follows:

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With the tube thus arranged, and in situ, it was found that after inflating the lungs through the tube, a very considerable effort was

required to expel the air through the larynx with the external orifice of the tube closed; thus showing the existence of obstruction to the egress as well as the ingress of air through the larynx. Patient was directed frequently to repeat this experiment himself, in the hope that the expansive pressure of the ascending column of air against the walls of the larynx might aid in overcoming the obstruction.

28*th*. No perceptible improvement had taken place since the preceding note. The obstruction appeared to be unchanged. Resumed the application of solution of nitrate of silver (℥i to ℥i), and succeeded in passing the sponge into the cavity of the larynx.

30*th*. Some improvement was now observable. Patient could count from one to six, in a clear tone of voice, with the tube closed externally.

September 1*st*. Still further improvement has taken place. Patient could count up to thirty, and breathe a few times uninterruptedly through the larynx.

5*th*. A sudden change of weather having interrupted his improvement since the previous date, patient was now again regaining what he had lost. Ordered iodide of potassium in solution, two and a half grains, three times a day. Stopped applications to larynx.

11*th*. The improvement of the voice continued, while that of respiration did not keep pace with it; imprudent exposure to the cold wind on the roof of the house had retarded his progress. Resumed the application of solution of nitras argenti (℈iv to ℥i)to the larynx, but continued it only a few days, after which all further treatment was laid aside. Up to the present time (April 3d, 1850) the patient, who is now submitted to your examination, has continued to enjoy excellent health. He still wears the tracheal tube arranged in the way already described, and suffers much less inconvenience from it than would be supposed. He is a boy of great activity, participates ardently in all the out-door sports of boys of his age, and also attends school. With the tube closed, he can breathe eight or ten times uninterruptedly, though before completing the number considerable effort is requisite. In using his voice he closes the tube with his finger.

In the month of October following, this patient was seen, and his condition ascertained to be very much the same as when exhibited to the Academy.—*Trans. N. Y. Acad. Med.*

Cases of Dislocation of the Femur on the Dorsum Ilii, reducible without Pulleys or any other Mechanical Power. By W. W. Reid, M. D.—[The following we extract from the Buffalo Medical Journal for August. It is part of a paper, the whole of which we would most gladly copy did our space in the present number permit.—*Ed. N. Y. Jour. Med.*]

Case 1.—In the spring of 1844—[I give this case from recollection, the notes which I made of it having been mislaid]—I was called to see a strong, robust Irish woman, of whom they gave me the fol-

lowing history:—Four days previous, while out at washing, about three-quarters of a mile from her own residence, she slipped and fell down a flight of steps—could not rise—and when helped up, could not stand. She made a great out-cry; but, as no blood was visible, she was thought to make a great "fuss for nothing." Her husband, who was an intemperate carman, was sent for. He put her on his cart, drove her home three-quarters of a mile; when he arrived there, not being able to lift her, he dumped her down at the gate as he would a load of dirt. The neighboring women helped him carry her in, and place her in bed. For four days they assiduously fomented her hip, of which she complained greatly; but it swelled considerably and became "black and blue." They now began to think the woman was "*hurted.*" In this condition I found her. A single glance at the position of the knee and toe, created a strong suspicion of dislocation, but an attempt to *abduct* and rotate the limb, gave great pain and determined the nature of the accident. Although the patient was suffering considerably, I was in extacies, and felt really obliged to her, not so much, I hope, for dislocating her hip, as for the opportunity she afforded me to reduce it. I called in Doctors M. Strong and the elder Bradley, and Mr. (now Dr.) Hammond, to assist me. I stated to them my determination to reduce it, if possible, without the use of pulleys, and explained my method. Nevertheless, I had provided myself with compound pulleys, to be used in case of failure. As the accident was of four days' standing, the hip considerably swollen and inflamed, and the patient quite muscular, I took the precaution to bleed her freely, and give her tart. antimony till nausea was produced. She was in the mean time placed on a lounge, on which a wide board was laid and covered with a folded quilt. This made a firm table about fourteen inches high, and about twenty inches wide, which gave me the opportunity of throwing the whole weight of my body on the flexed limb, if I wished, while it gave me perfect command and control over it in every way. The patient was placed on her back, and a sheet, folded lengthwise, thrown across the upper edges of the pelvis bones, and each end given to an assistant, for the purpose of fixing the pelvis. Placing myself on the right and injured side, I seized the knee with my left hand, and the ankle with my right; I then flexed the leg upon the thigh; at the same time slowly carried the knee and dislocated femur over the sound one, pressing it firmly down upon it—and upward over the pelvis, constantly pressing it close to the body, moving it upward with a circular sweep over the abdomen, till the thigh was in a line with the right side of the body and the knee, pointing towards the right axilla. While the thigh was being carried up to this position, the bone or axis of the femur, was performing a kind of rotation on itself, whereby the toe was coming more outward and the heel more inward. In other words, as the knee went upward, the *obturator externus*, *quadratus*, &c., drew the head of the bone downward, and inward towards its socket. When the knee and thigh were in the position above indicated, the heel was strongly rotated inward, the knee drawn outward, and the foot car-

ried across the thigh of the sound side, when the head slipped into its place, and the limb glided gently down into its natural position. In doing all this, comparatively very little force was employed, and very little pain produced, for the obvious reason that, by this evolution, the muscles that were in a state of extreme tension and irritation by the displaced bone, were gradually relieved and relaxed, as the head of the bone descended and approximated its proper place, which it did by the action of these same extended muscles.

It will be perceived, that by this mode of operating, we make a *lever* of the shaft or bone of the femur, and a fulcrum of the edge of the pelvis, and by this means lift or dislodge the head of the bone, while the abductor muscles draw it downward and inward, making it, as it were, *back into* its place, through the rent of the capsular ligament. Whereas, if it were drawn by direct force, as by the pulley, the head and neck of the bone would act as a kind of hook, and would tear away the capsular ligament, if it were only slit, and as I believe it often, if not always, does tear off the tendon of the *pyriformis*, as I shall endeavor to show presently; for the *abductor* muscles are so strained, and hold the head of the bone so firmly to the dorsum, behind the ridge of the *acetabulum*, that it is next to impossible for it to mount over this ridge and into the socket, and must therefore descend behind it, tearing every thing before it—ligaments, muscles and all—and hence the immense power required to reduce it by these means, and hence, too, the failures, the fractures of the neck, and the cripples, that have been made for life, by this barbarous and unscientific mode of reduction.

Case 2.—On the 31st of July, 1849, Mrs. Cornelius Christie, aged about 38 years, was thrown from the top of a load of household furniture, with a small child in her arms. Mother-like, she held fast to the child, which received no harm; but, falling among and upon the furniture, she had the perineum and vulva considerably lacerated, and her right hip dislocated. I saw her within one hour after the accident. Doctors Bowen, Brown and Nolton were in attendance when I arrived in company with Dr. E. P. Langworthy. The patient was placed at once in the position as already described in case No. 1, when I proceeded, in like manner, to operate; but the wound in the perineum and vulva occasioning great pain, on the attempt to flex the thigh, I desisted, and gave a full dose of morphine—not having any chloroform on hand. We waited three-fourths of an hour for the effect of the morphine. I then, as already described, seized the knee with one hand, the ankle with the other, flexed the leg on the thigh, the thigh on the pelvis, carrying it *inward and over the sound limb*, then upward over the abdomen, till the thigh was nearly parallel with the right side, then rotated the heel inward, carried the foot over the sound thigh, and the knee outward, when by a gentle oscillation and rotation of the thigh, the head slipped into the socket. The whole time required in this operation did not exceed *two minutes*. The force employed, and the pain suffered, were too trifling to be named.

Case 3.—On the 2d of Dec., 1849, early in the morning, I met Dr. E. M. Moore, Prof. of Surgery in the Woodstock and Berkshire schools of medicine. He informed me he had been called up in the night to attend a case of dislocated hip. I jestingly said, "I wish you would let me show you how to reduce it." He replied as jocosely, "I understand you have got some new-fangled notions about dislocations, and I should like to see you try your skill." He desired me to explain my method. I did so, illustrating it by manipulations on the skeleton in his office. He agreed that I should make the attempt; but, that the full merit of my mode of operating should be brought out, he proposed that I should have no aid from any of the usual adjuvants, such as the warm bath, nauseating doses of antimony, bleeding, opium, nor chloroform. To all this I consented.

The patient, William Fagan, was a strong, muscular Irishman, 52 years of age. He was placed on a lounge, on a board covered with a folded blanket, as already described; two assistants, one on each side, steadied the pelvis. I proceeded in all respects as above stated in the two preceding cases, and in about *two or three minutes* reduced the dislocation. Doctors Moore and Cruttenden, Mr. D. Bly, and other students of Dr. M. were present.

To those who have never witnessed this mode of operating, these statements may seem incredible, yet so simple, easy and short is it, that Dr. Moore declared, that "hereafter any fool might reduce dislocation of the hip on the *dorsum ilii*." Although in the three cases given above, I used a low table, yet I believe the floor is better, and all that is necessary. I used, too, a folded sheet thrown over the pelvis, and had it held down on each side by an assistant; but even this is unnecessary, and is, moreover, always in the way, after the thigh has been fixed to a right angle with the spine or axis of the body; when the thigh has reached this position we have perfect control of the pelvis, and can fix it firmly, by pressing the thigh strongly down upon it. So simple, too, is the operation, that if the patient be a female, and it were required to reduce the joint without exposing the person, it can be done, under a light covering, or under even her own dress, if sufficiently loosened.

Formulæ for Mattauer's *Aperient Solution.*—This compound for constipation, which Dr. M. modestly claims "the sole credit of originality in the invention of," is as follows:—℞ Aloes Socat. ʒiiss; Super carb. Sod. ʒvj; Water Oiv; Spirit. lav. compos. f ʒij. After digesting for fourteen days, the clear liquid may be decanted; or it may be suffered to remain on the fœces. Age greatly improves this aperient, both in power and taste. The proper times for using this remedy are, a few minutes after dinner and supper—from twenty-five to thirty. The usual dose is a fluidrachm, but it may be augmented in some cases to an ounce. Prepared as directed, it proves a most valuable aperient, acting both upon the liver and muciperous cryptæ of the intestines. It also effectually corrects and prevents acidity of the prima viæ; and doubtless, to some extent, proves assimilative, espe-

cially when oily substances are freely used as food. It is applicable to nearly every example of constipation, except that distinguished by an alcalescent state of the stomach; and it may be employed with safety even in the constipation of pregnant females. I have frequently used it with great benefit where hæmorrhoidal tumors existed about the verge of the anus. I regard it as a valuable emmenagogue, when constipation exists as a concomitant morbid condition and the dysmenorrhœa is unattended with fever and inflammation. In the constipation attending the convalescent stage of fever, and in that also occurring in students of sedentary habits, I regard it as the very best remedy in the world.—*Abridged from Amer. Jour. of Med. Science.*

On the Treatment of Varicocele by Gutta Percha dissolved in Chloroform. By H. G. Carey, M. D., of Dayton, O.—After having used gutta percha considerably for other purposes, a knowledge of its properties forcibly suggested it in solution, as admirably fitted to fill the desired objects sought in the treatment of varicocele. In order to apply it, the patient is placed upon his back, and by means of cold, the scrotum is corrugated until it is drawn firmly over the root of the penis, compressing the testes firmly in the upper portion of the inguinal pouches; then, by means of a camel's hair pencil, after the hair has been removed, apply the solution freely over the site of the scrotum, allowing it to extend on all sides some distance, by a thin attachment; but over the scrotum proper, lay on a succession of coats, until a uniform covering throughout of a line in thickness, is obtained, which will be sufficiently strong to form an artificial pouch of the nature and character desired. This thickness will be so yielding and pliable, as not to afford the wearer any considerable inconvenience. Soon after the solution is applied to this *sensitive part*, the patient will complain bitterly of the burning sensation experienced, depending upon the presence of the chloroform; but this temporary inconvenience will soon pass off. The constitutional indications, if there be any, must not, of course, be neglected.

I have not as yet had an opportunity to test the powers of this article in relieving the same condition of the veins in the extremities, but surely think that much pain might be prevented, and success in the treatment greatly increased.—*Western Lancet.*

Gastrotomy successfully performed for Extra-Uterine Pregnancy. By Drs Bradley and Rogers.—The patient was a negro woman, aged 28 years, the mother of seven children. In June, 1849, six weeks after conception, she began to complain of colic, attended with constipation. On the 10th of Feb., 1850, she supposed herself in labor. On examination, the os uteri was natural and the breasts were flabby. There had been no movement of the child felt since the middle of November, at which time there was milk in the breasts. A tumor filling the whole right lumber region, extending above the

hypochondriac, and below to the iliac region, and somewhat to the left of the umbilicus. There was also present considerable febrile disturbance. She was certain that she had felt the motions of the child, from the fourth or fifth to the seventh or eighth month, when she supposed it died. The diagnosis being extra-uterine pregnancy, the removal of the child was recommended.

On the 7th of Feb., 1851, the patient having been previously prepared, chloroform was administered. An incision was made, extending for two inches above the umbilicus to the pubes. The fœtus was found in the right fallopian tube, fully formed and about the size of a seventh-month child. Bnt little decomposition had taken place. It was firmly attached to the peritoneum, anteriorly and posteriorly, and latterly to the uterus. In separating the attachment, the epidermis of the child was removed at the adherent portions. After removal, the parts were carefully cleansed, and four sutures, with sufficient adhesive plaster, were used, and an opiate was ordered. Her recovery was rapid, so much so that, four weeks after the operation, it was complete.—*N. O. Med. and Surg. Jour.*

Surgical Treatment of Vesico-Vaginal Fistula. By GEORGE HAYWARD, M. D.—From a paper on vesico-vaginal fistula, in the Boston Medical and Surgical Journal, we learn that Dr. Hayward has operated twenty times on nine patients. In three cases the operation was entirely successful; in five the patients obtained great relief, so that the urine could be retained for a number of hours without any escape through the fistulous opening; and in the remaining two, no benefit was derived. His mode of treatment was is follows:—

The patient being thorougly etherized, the bladder can be brought down by introducing a large sized bougie (one made of whalebone, highly polished, is to be preferred) into the urethra, to the very fundus of the bladder, and carrying the other end up to the pubis. In this way the fistula is readily brought in sight. Its edges can be pared with the scissors or a knife, though usually both these instruments are required; and this part of the operation is much facilitated by holding the edges by means of a double hook. In all the cases that I have examined, these edges are thick, hard, and usually of a white color. It is not difficult, therefore, to dissect up the outer covering from the mucous coat of the bladder to the distance of two or three lines. The needles are then to be passed through the outer covering only, and as many stitches must be introduced as may be found necessary to bring the edges of the fistula in close contact.

Since my first operation, I have used a short needle with the eye near the point, made to fit on to a long handle. The instrument, when the two parts are together, looks not much unlike a tenaculum, though not so much curved, and considerably broader near the point.

As soon as the needle is passed through one side of the fistula, it is immediately seized with the forceps, the handle is withdrawn, and the needle is then carried through. It is to be then again fitted to

the handle, and carried through to the other side in the same way. As many stitches as may be thought necessary to bring the parts into close contact can in this way be taken with great ease One thread of each stitch is to be cut off; it is convenient to leave the other, as it enables the operator and patient to know when the ligatures have separated from the bladder.

A large sized female catheter is then introduced into tho bladder, and secured there by means of a T bandage. The patient should be laid on her side, with the upper part of the body somewhat raised, so as to facilitate the flow of water through the catheter. This should be removed at least once in every twenty-four hours, as it is very likely to be obstructed by mucus, coagula of blood, and occasionally calculous concretions. In three days I think it safe to remove it altogether, but then it should be introduced at least once every three hours, for ten or twelve days more, so as to prevent any accumulation of urine in the bladder, and consequent strain on that organ.

The diet should consist entirely of liquid, mucilaginous food; such as an infusion of slippery elm, gum Arabic and water, flax-seed tea, arrow-root, annd milk and water. This diet, in my opinion, should be continued till the ligatures come away.

The bowels should be opened by some mild laxative a few hours before the operation; but it is desirable that they should not be moved again till some days after.

It may be proper to add, that I have never had any troublesome hemorrhage from the operation, nor any alarming symptoms after it. In some cases the pain has been severe for two or thre days, and once or twice it has run down the limb, apparently in the course of the sciatic nerve. When performed in the way that I have recommended, I believe it to be attended with very little if any danger, as the bladder is not subjected to any considerable degree of violence, nor any part injured to a great extent.

MISCELLANEA.

Results of Surgical Operations in Malignant Diseases—American Medical Association.

To the Medical Profession of the United States:

The undersigned having been appointed, at the last meeting of the American Medical Association, Chairman of the committee on the "Results of Surgical Operations in Malignant Diseases," respectfully solicits contributions to the subject, founded upon personal observation. To place the subject in as tangible a form as possible, he beg leave to direct attention to the following points:

1. The difference between cancerous and cancroid diseases, or those affections which are truly malignant, and those which are only partially so. In the former category are comprised scirrhus, cephaloid, and melanosis; in the latter, certain maladies of the skin and mucous tissues, as lupus, cheloid, eiloid, and cancer of the lip.

2d. The precise seat of the disease, as the skin and subcutaneous

cellular tissue; the eye, ears, nose, face, lips, tongue, salivary glands, jaws, and gums; the lymphatic ganglions of the neck, axilla, groin, and other regions; the mammary gland, uterus, ovary, vulva and vagina, penis and testes; the anus and rectum; and, finally, the extremities.

3. The age, sex, temperament, residence, and occupation of the patient.

4. The cause of the disease, its progress, and the state of the part and of the system at the time of the operation.

5. Mode of operation; whether by the knife, caustic or ligature.

6. Time and death, or relapse, after operation.

7. Examination of the morbid product; how conducted—whether by the unassisted eye alone, or by means of the microscope, and chemical tests.

The undersigned hopes that the importance of the subject confided to him, as chairman of the committee above referred to, will be sufficiently appreciated by his professional brethren to induce them to aid him in carrying out the wishes of the American Medical Association. The subject is one of absorbing interest, and cannot fail, if properly treated, to elicit matter of the greatest benefit. It is very necessary that all communications upon the subject should be sent to the chairman of the committee by the 1st of January, 1852.

Medical journals, and newspapers friendly to the interests of medical science, will confer a favor upon the undersigned by inserting the above notice. S. D. GROSS, M. D.

University of Louisville, June 29, 1851.

Prize Essays—American Medical Association.—At a meeting of the American Medical Association held in Charleston, S. C., in May last, the undersigned were appointed a Committee to receive and examine such voluntary communications on subjects connected with medical science, as individuals might see fit to make, and to award a prize to any number of them not exceeding five, if they should be regarded as entitled to such a distinction.

To carry into effect the intentions of the Association, notice is hereby given, that all such communications must be sent post-paid, on or before the first day of April, 1852, to Geo. Hayward, M. D., Boston, Mass. Each communication must be accompanied by a sealed packet, containing the name of the author—which will not be opened unless the accompanying communication be deemed worthy of a prize. The authors of the unsuccessful papers may receive them on application to the Committee, at any time after the first of June, 1852; and the successful ones, it is understood, will be printed in the Transactions of the Association.

Geo. Hayward, J. B. S. Jackson, D. H. Storer, Jacob Bigelow, *Boston.* Usher Parsons, *Providence, R. I.*

Boston, Aug. 20, 1851.

Reconciliation.—The June number of our excellent cotemporary, *The Medical Examiner*, we are glad to see, contains a "statement,"

which embodies a reconciliation of the differences recently existing between Drs. Bell and Jackson. Nearly a year since we received two pamphlets containing the points of differences which had led to an alienation of friendship between these two senior members of the profession, and we studiously avoided at that time taking any notice of them in our pages—feeling that (if we were not most egregiously mistaken) there was a governing principle in our noble profession that would disarm even enmity of its wickedness, and restore to friendship those who had become temporally estranged by a lesser love for the honor and dignity of our most noble calling.

Signor Sarti's *Anatomical, Physiological and Pathological Preparations in Wax.*—By reference to the advertising sheet of this number, our readers will see that the beautiful and valuable wax preparations of the late Signor Sarti, celebrated the world over for their accuracy and artistical finish, will be sold at auction, on the 15th of September next, in this city. It is hardly necessary for us to say that another such an opportunity for some of our colleagues to enrich their museums can never again take place here. *We* have seen and admired (and who would not) their exquisite beauty and accuracy.

Anatomical Drawings.—We have received copies of some excellent drawings of the surgical anatomy of the head and neck, and of inguinal and femorial hernia, executed by Mr. H. A. Daniels, from dissections by Dr. C. E. Isaac's. These copies reflect much credit upon the artist, who, we are pleased to say, is eminently worthy of the patronage of the profession.

OBITUARY.

Death of Samuel George Morton, M. D. This distinguished physician and naturalist is no more. He died in Philadelphia on the 15th May last, of apoplexy, aged fifty-two years. Dr. Morton at the time of his death stood at the head of American naturalists, and his reputation was as extended as that of science. His contributions to natural science stood unrivaled in the English language. His *Fossils of the Cretaceous Group;* his *Crania Americana;* his *Crania Egyptica;* and his contributions to *Hybridity* will, in this department of science render his name immortal. But it is not alone in natural science that he shone preëminent. To the literature of our profession he was a valuable contributor. His *Illustrations of Pulmonary Consumption* and his *Illustrated System of Human Anatomy* have served to "enroll his name among the expositors of a science that has occupied many of the best years of his life," which will be cultivated by the great and good of ages to come, until time shall be no more. The death of Dr. Morton deprives our profession of one of its most distinguished members, and terminates the scientific career of one whose name has by common consent, been enrolled among the brightest ornaments which adorn our country's medical and scientific character.

TO READERS AND CORRESPONDENTS.

☞ A review of Ricord's Clinical Illustrations of Syphilitic Disease is unavoidably postponed until our next.

Beck's Materia Medica.—As our last sheet is going to press we learn that the posthumous lectures of the late Prof. J. B. Beck have been edited by his friend and colleague Prof. Gilman, and published by Messrs. S. S. & W. Wood, of this city. In our next number we hope to notice the work more fully.

The following works have been received:

A Practical Treatise on the Diseases of the Lungs and Heart, including the Principles of Physical Diagnosis. By WALTER HAYLE WALSHE, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in University College, London, etc., etc. Philadelphia: Blanchard & Lea, 1851, 12mo. pp. 512. (From the Publishers.)

Special Anatomy and Histology. By WILLIAM E. HORNER, M. D., Professor of Anatomy in the University of Pennsylvania; Senior Surgeon to St. Joseph's Hospital; Member of the Academy of Natural Sciences of Philadelphia, etc., etc. Eighth edition. Illustrated with Anatomical figures. Philadelphia: Blanchard & Lea, 1851. Two volumes, 8vo., pp. 510–500. (From the Publishers.)

Southern Medical Reports; consisting of General and Special Reports on the Medical Topography, Meteorology, and Prevalent Diseases of the following States: Louisiana, Alabama, Mississippi, North Carolina, South Carolina, Georgia, Florida, Arkansas, Tennessee, Texas, and California. Edited by E. D. FENNER, M. D., Member of the American Medical Association; Member of the Physico-Medical Society of New-Orleans. Vol. 2, 1851. N. Orleans: D. Davis, Son & Co. New-York: S. S. & W. Wood, 1851, 8vo., pp. 498. (From the Author.)

The Laws of Health in Relation to Mind and Body; A Series of Letters from an Old Practitioner to a Patient. By LIONEL JOHN BEALE, M. R. C. S. Philadelphia: Blanchard & Lea, 1851, 12mo., pp. 295. (From the Publishers.)

Cox's Companion to the Sea Medicine Chest, and compendium of Domestic Medicine; Particularly adapted for Captains of Merchant Vessels, Missionaries, and Colonists; with plain Rules for taking the Medicines; and to which are added Directions for restoring Suspended Animation, the Method of obviating the effects of Poisons; a plain description of the treatment of Fractures and Dislocations: and a concise account of Asiatic or Spasmodic Cholera. Revised, and considerably enlarged. By R. DAVIS, M. R. C. S. First American, from the thirty-third London

edition. New-York: S. S. & W. Wood, 1851, 12mo. pp. 216. (From the Publishers.)

History of the Epidemic of Cholera in Chatham, Rochester, and Stroud, in 1849. By THOMAS STRATTON, M. D., Edin.; Member of the Edinburgh Clinical Society; Surgeon Royal Navy;—(in a letter to William Burnett, M. D., K. C. B., K. C. H. Medical Director-General of the Navy.) (From the *Edin. Med. and Surg. Jour.*) Edinburgh: Adam and Charles Black, 1851, 8vo., pp. 44. (From the Author.)

Transactions of the Medical Society of the State of Pennsylvania, at its Annual Session, held in the City of Philadelphia, May, 1851. Vol. 1. Published by the Society. Philadelphia, 1851, 8vo., pp. 128. (From the Society.)

Transactions of the Medical Association of Southern Central New-York, at the Annual Meeting, held at Binghamton, June, 1851. Binghamton, 1851, 8vo., pp. 122. (From Dr. Geo. Burr.)

Proceedings of the Iowa State Medical and Chirurgical Society, second Annual Meeting, held in Fairfield, May, 1851. Keokuk, 1851, 8vo. pp. 63. (From the Society.)

Proceedings of the Twenty-second Annual Meeting of the Medical Society of Tennessee, held at Murfreesborough, April, 1851. Murfreesborough, Tenn., 1851, 8vo., pp. 88. (From the Society.)

On the Remedial Properties of Alimentary Substances, and the changes produced by Oxygen in Health and Diseases; being an Address delivered before the Illinois State Medical Society. By W. B. HERRICK, M. D., President of the Society; Prof. of Anatomy and Physiology in Rush Medical College. Published by order of the Society. Chicago, 1851, 8vo., pp. 16. (From the Author.)

Laws of the State of Georgia, relating to the Practice of Medicine. By C. T. QUINTARD, M. D., Corres. Sec. of the Medical Society of the State of Georgia, Augusta, 1851, 8vo., pp. 12. (From the Author.)

The following Journals have been received in exchange:

The American Journal of the Medical Sciences; edited by ISAAC HAYS, M. D.; for October. (Quarterly. Philadelphia.)

The American Journal of Insanity; edited by the officers of the N. Y. State Lunatic Asylum; for October. (Quarterly. Utica.)

The American Journal of Pharmacy; edited by JOSEPH CARSON, M. D., and WM. PROCTOR, M. D.; for October. (Quarterly. Philadelphia.)

The New Jersey Medical Reporter and Transactions of the New Jersey Medical Society; edited by JOSEPH PARISH, M. D.; for Sept. and October. (Monthly. Burlington.)

The Medical Examiner and Record of Medical Science; edited by F. G. SMITH, M. D., and JOHN B. BIDDLE, M. D.; for September and October. (Monthly Philadelphia.)

The Charleston Medical Journal and Review; edited by D. J. CAIN, M. D. and F. P. PORCHER, M. D.; for September. (Bi-monthly. Charleston.)

The New Orleans Medical and Surgical Journal, devoted to Medicine and the Collateral Sciences; edited by A. HESTER, M. D.; for September. (Bi-monthly. New Orleans.)

Southern Medical and Surgical Journal; edited by L. A. DUGUS. M. D.; for September and October. (Monthly. Augusta.)

Buffalo Medical Journal, and Monthly Review of Medical and Surgical Science; edited by AUSTIN FLINT, M. D.; for September and October. (Monthly. Buffalo.)

The North-Western Medical and Surgical Journal; edited by J. EVANS, M.D., and EDWIN J. MEEK, M. D.; for September. (Bi-monthly. Chicago and Indianapolis.)

Transylvania Medical Journal; edited by ETHELBERT DUDLEY, M. D.; for August and September. (Semi-monthly. Lexington.)

The Western Lancet and Hospital Reporter; edited by L. LAWSON, M. D., and GEORGE MENDENHALL, M. D.; for September and October. (Monthly. Cincinnati.)

New-York Medical Times; edited by J. G. ADAMS, M. D.; for October. (Monthly. New-York.)

The New-York Medical Gazette; edited by D. M. REESE, M. D.; for Sept. and October. (Semi-monthly. New-York.)

The Boston Medical and Surgical Journal; edited by J. C. V. SMITH, M. D.; September and October numbers received. (Weekly. Boston.)

The Western Journal of Medicine and Surgery; edited by L. P. YANDELL, M. D., and T. S. BELL, M. D.; for September and October. (Monthly. Louisville.)

The Ohio Medical and Surgical Journal; edited by RICHARD L. HOWARD, M. D.; for October. (By-monthly. Columbus.)

The Stethescope and Virginia Medical Gazette; edited by P. CLAIBORNE GOOCH, M. D.; for September and October. (Monthly. Richmond, Va.)

Nashville Journal of Medicine and Surgery; edited by W. K. BOWLING, M. D.; for October. (Bi-monthly. Nashville, Tenn.)

The New Orleans Monthly Medical Register; edited by A. FORSTER-AXSON, M. D.; for October. (Monthly N. O.)

Nelson's Northern Lancet and American Journal of Medical Jurisprudence; edited by HORACE NELSON, M. D.; for October. (Monthly. Plattsburgh, N. Y.)

The Philadelphia Lancet; edited by THOMAS D. ENGLISH, M. D. (Semi-monthly. Philadelphia.)

☞ *No numbers received since our last acknowledgment—has it stopped?*

The New-York Dental Recorder; edited by C. C. ALLEN, M. D., Dentist; for August and September. (Monthly. New-York.)

The British American Medical and Physical Journal; edited by ARCHIBALD HALL, M. D., L. R. C. S. E.; for September and October. (Monthly. Montreal.)

The Journal of Psychological Medicine and Mental Pathology; edited by FORBES WINSLOW, M. D.; for Jany., April and July. (Quarterly. London.)

Dublin Quarterly Journal of Medical Science; edited by ———; for August. (Quarterly. Dublin, Ireland.)

Dublin Medical Press; edited by ———; for August and September. (Weekly. Dublin.)

London Medical Gazette, or Journal of Practical Medicine; edited by ———; for August and September. (Weekly. London.)

London Journal of Medicine; a Monthly Record of the Medical Sciences; edited by ———; for August and September. (Monthly. London.)

Monthly Journal of Medical Science; edited by WM. ROBERTSON, M. D.; for August and September. Monthly. Edinburgh.)

☞ Communications intended for publication, and Books for review, should be sent *free of expense*, directed to Dr. Purple, editor of the New-York Journal of Medicine, 39 Wall-street, *New-York*. Persons at a distance may direct parcels, *paid* as above, under cover, to M. Hector Bossang, Lib. quai Voltaire, No. 11, *Paris;* or G. P. Putnam, 40 Bow Lane, Cheapside, *London;* or Lindsay and Blakiston, *Philadelphia;* or Wm. B. Ticknor & Co., *Boston*. The attention of Correspondents is respectfully requested to the above, as the publisher is frequently subject to unnecessary expense for postage and carriage.

All remittances of money and letters on the *business* of the Journal, should be directed to the publisher.

The advertising sheet belongs to the business department of the Journal, and all communications for it should be addressed to the publisher, under whose exclusive control it is.

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Clinique Medico-Chirurgicale, du PROF. LALLEMAND. Tome Premiere. (Art. Retrécissemens de l'Urètre. Affections de la Prostate.) Paris, 1845.

(Medical and Surgical Clinique of PROF. LALLEMAND. Vol. I. Article, Strictures on the Urethra Diseases of the Prostate Gland.)

Bibliothèque du Médicin-Praticien. Tomes Troisième et Quatrième. Maladies des Organes Génitaux chez l'Homme.

(Library of the Practical Physician. Vols. III. and IV. Diseases of the Genital Organs in Man.)

Traité Pratique sur les Maladies des Organs Genito-Urinaires, par le Docteur Civiale.

A Practical Treatise on the Diseases of the Genito-Urinary Apparatus, by Dr. Civiale, &c., with plates.

Traité des Rétrécissements Organiques de l'Urètre, &c., par Victor Perreve (Ouvrage placé au premier rang pour le Prix d'Argenteuil, sur le rapport d'une commission de l'Academie de Médicine.) Accompagné de 3 planches et de 32 figures intercalées dans le texte.

A Treatise on Strictures of the Urethra, by Victor Perreve.

Maladies des Voies Urinaires et des Organes de la Génération, par le Docteur Dubouchet. Dixiéme edition.

Diseases of Urinary Passages, and of the Organs of Generation.

Urinary Deposits, their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, A. M., M. D., F. R. S., F. L. S., &c. &c. pp. 428. London, 1851.

On Stricture of the Urethra and Fistula in Perineo. By James Syme, F. R. S. E., Professor of Clin. Surgery in the University of Edinburgh, &c. &c. Edinburgh, 1849. 8vo.

On Stricture of the Urethra, its Pathology and Treatment; Comprising Observations on the Curative Powers of the Potasse Fusa in that Disease; with cases. By Robert Wade, F. R. C. S., Senior Surgeon to the Westminster General Dispensary, &c. &c. 2d edition, greatly enlarged.

A Treatise on the Cure of Stricture of the Urethra, with practical Observations on the treatment of Spermatorrhœa by Cauterization. By F. B. Courtnay, M. R. C. S. E. London, 1851.

Practical Observations on the Treatment of Stricture of the Urethra and Fistula in Perineo, &c. &c. By John Lizars, late Professor of Surgery to the Royal College of Surgeons, and Senior Operative Surgeon to the Royal Infirmary of Edinburgh. 1851.

Pathological and Practical Observations on Strictures and some other Diseases of the Urinary Organs. By Francis Rynd, M. A., M. R. I. A., Surgeon to the Meath Hospital and County of Dublin Infirmary, &c. &c., - - - - 357

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